

JANUARY 1st, 1892.

THE AMERICAN FARMER

Established 1819.

PUBLISHED By the
FARMERS' PUBLISHING CO.
MIDDLETOWN, MD.

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38

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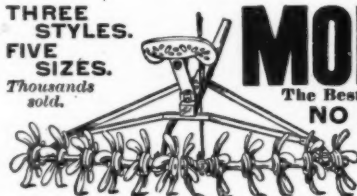
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THE AMERICAN FARMER.

DEVOTED TO AGRICULTURAL, HORTICULTURAL AND RURAL LIFE.

ESTABLISHED 1819.

MIDDLETOWN, MD., JANUARY 1, 1892.

ELEVENTH SERIES.

VOL. 1.—No. 1.

The American Farmer.

Published Semi-Monthly by the
Farmers' Publishing Company,
MIDDLETOWN, MD.

Entered at the Middletown, Md., Post Office
as second-class matter.

TERMS OF SUBSCRIPTION.

One year in advance.....\$1.00
Six months "......50
Three months "......30

Write for special inducements to club raisers.
Advertising rates made known upon appli-
cation.

Our readers will oblige us when writing
to parties advertising in this paper, if they will
state that they saw the advertisement in **THE
AMERICAN FARMER**. This is little trouble and
costs nothing, but it helps us and is informa-
tion wanted by the advertiser.

EDITORIAL.

SALUTATORY.

With this number of "The Amer-
ican Farmer" begins a new manage-
ment and we trust that we
will be able to keep its standard up
to the wants of our readers and
patrons. We will endeavor to ascer-
tain their wants and work accord-
ingly. The great esteem in which
this journal has been hitherto held
by good judges of what a "farmer's
paper" should be, reflects great credit
upon its former proprietors and edi-
tors, and we feel that our task will
be no small one, to keep up its well-
earned prestige.

"The American Farmer" was first
published in April 1819, and is there-
fore the "pioneer" of agricultural
journals in America. We further
claim that the great majority of its
patrons were of the most intelligent
classes, which speaks volumes for its
former management. But changes
come, some pass away and others
come to the front. We must take up
the work that we find to do, and give
our best energies to keep up the fight
of life. Our predecessors call for
and expect this at our hands. If we
shrink from this duty we insult the
past, disgrace the present and our-
selves and rob the future. We now
propose to give our best efforts to
this work, together with all we can

honorably gather from practical and
trusted exchanges. We promise
to place before our patrons
a journal improved in size,
neat in appearance, brim full of
thoughts for reflective minds and
without advance in price. We thus
hope, in some degree, to merit a
patronage that will enable us, in the
future, to keep useful hints and sug-
gestions before all persons interested
in the greatest pursuit of man,—
agriculture. We launch forth this
number, "sowing in hope," as be-
comes the true husbandman, never
doubting for a moment, that success
generally, if not always, is in true
proportion to effort. Our ability may
not measure up to full stature, but
we promise to keep our heart true to
the undertaking.

All former patrons and contribu-
tors, now surviving, we cordially in-
vite into our family. This old, reli-
able journal we trust, has many sur-
viving friends, and if we can com-
mand aid from their experience and
contributions we feel assured of suc-
cess.

THE NEW YEAR.

We begin the year by wishing long
and useful lives to our kind patrons
and readers. Happiness, we believe,
consists largely in few wants and
close friends. Simple living more fre-
quently conduces to real pleasures
than anything else that we can recur
to at this time. Real wants are very
few if viewed from a virtuous and
practical standpoint, but imaginary
wants crowd themselves upon us ad
infinitum, if we allow our grosser
nature to have the controlling power.
We think we can see that the farmer,
with all the tribulations and trials of
his busy life, really has the best
opportunities to attain to the acme of
earthly happiness. His intercourse
with nature,—indeed all his surround-
ings seem to invite him to a repose of
mind, such as we feel, no other class
do really enjoy.

We add a few stanzas of doubtful
authorship, but we think quite rele-
vant:

"Oh, happy! blest of all his race,
The man who tills the soil;
Whose spring and harvest hopes, in place,
Come sweetening every toll.
Were mine a field of waving grain:
A mead, with "cattle sprinkled o'er,"

A wood to tempt the warbling train,
Before my house a grassy plain,
Descending to some shore.

"In joyous ease I'd spend my life,
In spite of fortune's frown;
Nor e'er, like Lot's undutious wife,
Regret the noisy town,
Farewell the counting-house and store,
Amid the city's din;
My eyes and ears be vexed no more,
With "Lend me, Sir," without the door,
And "Sir, your note," within.

"Lord help the man who spends his days
In borrowing and lending;
Dogg'd here and there a thousand ways,
Yet times are never mending,
Be mine the wagon, plow and spade,
'Tis man's first destination;
With health and plenty more than paid,
I'd take my cheer and shake my head
At fools of rank and station.

WORK FOR JANUARY.

Mid-winter is upon us, but yet how
much farmers can find to do. First
the planning out for the year should
be well considered; often we are
housed up for days at a time, but in
this we can find useful employment.
Now is the time to think out what
will be wrought out when opportu-
nity offers. The acreage and loca-
tion for Spring crops can be thought
over and marked out, farming imple-
ments can be examined and put in
condition for use, and if you have
kept an account of incomes and out-
lays during the past year, now is the
time to square up your books and find
out the heavier side. Every careful
farmer will know pretty well whether
he made mistakes or not, will see
where he lacked in judgment or lost
by neglect. If you have never kept
strict account of a year's work, begin
it now and place a valuation upon
your stock and effects with which
you run your farm. It may be well
to value your different crops and
stock separately, each of its kind.
The satisfaction it will bring will
amply repay you for the trouble, to
say nothing of the insight into your
farming operations. Try it and be
convinced.

GROWING WHEAT.

We believe that wheat fields that
showed rank growth in the Fall
should be pastured now, if frozen
hard. Even if you had no fly in the
Fall they often appear next month

and do much damage. Pasturing closely with sheep and cattle often prevents their ravages. On flat or wet fields of growing grain, winter killing can be largely prevented by furrow-draining, thus draining off much surface water. This should be done of course in the Fall, but the furrows sometimes fill up, and should be opened whenever the ground is in condition.

TOBACCO.

This is often the best month for stripping, assorting and tying tobacco. Our experience taught us much in handling. It must be properly handled, otherwise much loss will occur. Neither too high nor too low. "Too high" brings mold,—"too low" causes it to crumble. Assorting should be carefully done, the several colors to themselves, fillers, binders and wrappers also properly arranged if you wish to command a good price.

SOWING TOBACCO SEED.

Many different opinions have been given upon this subject. The old plan was to burn old logs and brush upon the hoed-up ground thus heating to kill all grass seeds. Where you have old stumps, brush or old worthless timber of any kind in abundance, this is the very best plan yet. Your outlay will be only your little labor at the beginning, and if properly done, you will have little weeding to do. When the ground is in condition, sow the seed, tramp it hard with the feet or a roller if convenient, then cover thinly with oats or wheat straw. Then put on about one inch of leached wood ashes, then throw a few poles over to keep the wind from removing the straw. This sowing can be done any time during January or later if the ground is favorable. Guano is now frequently used with fair results by being hoed into the soil.

STOCK.

Stock of all kinds should have especial attention at this season of the year. Good shelter amounts to much, and if properly attended to, stock of every description will subsist and do well upon about half the feed usually given. Keeping them clean should be a specialty with farmers. Keep them dry, clean and regularly fed, and thus save feed and prevent disease.

WORKING IMPLEMENTS.

These should be housed and kept as free from rust as possible. The average farmer really knows the loss in this direction, but often puts off this duty or perhaps forgets it entirely. Agricultural implements cost much, and even when well cared

for, wear out very soon, and hence it is proper to care for them at the proper time.

CLOVER.

No stock of any description should be allowed to enter the clover field until ready for grazing, and even then, on wet days much could be gained by penning off the stock till the field is dry. It seems like folly for a farmer to plough, sow and fertilize a field for a crop and then turn his stock upon it to be practically destroyed in a few months. We think that hogs do more injury to the clover pasture than their flesh ever repays. They nip off the heads and other stock will not eat what is left. Keep off the hogs we advise.

OUR INVITATION.

We feel that we have taken upon ourselves a task of immense proportions and heavy responsibilities. To look after the farmer's interests in an honest and an intelligent manner, requires much labor and erudite thought. While we have fully determined to do our very best, we feel that we need all the outside aid we can command,—hence the invitation. The class of persons we propose to serve is well known to be the mainstay of this Nation, and we will be amply compensated if THE AMERICAN FARMER under its present management, succeeds in ameliorating,—even in small degree, the farmers' condition. Now to do this, our invitation goes out to all,—old and young, without regard to sex or condition. We want facts, experiences, suggestions and thoughts couched in short and pithy letters. No point will be made against any writer for this journal, on account of bad spelling or grammar. Only give us enough to understand your meaning, we will do the rest, and feel good in so doing. Your contributions from time to time will do you much good, especially those who have never attempted writing for papers before, and none will find that out as quickly as the writers themselves. To others who have been writing from time to time, we deem it unnecessary to say a word, for they well know the benefit and pleasure of such work. Write as you see things now, as you saw them in the past, and even speculate on the future. We will be glad to receive your letters and will appropriate them to their proper use. Never get the idea in your minds that you can do nothing, for such ideas, even slightly fostered, often strand their entertainers. Again we say "write us."

WINTER PLOWING.

So much has been said upon this subject that we have little to do for our readers, more than give in our experience.

The subject has been ably discussed by our best agriculturists and we believe that a large majority have spoken in favor of fall and winter plowing. We therefore, only repeat what has been said over and over again, when we say that heavy, stiff clay soils are benefited by winter plowing, when in sod; but if not in sod or grass covered, we stand decidedly opposed to disturbing the soil till early spring. Land in grass, by being winter worked, evidently rids itself of many worms, that often prey upon the young crops. Weed roots also are exposed and die out by this method; but corn or wheat stubble are not likely to be infested with worms or weeds, and if plowed in spring, the ground very generally becomes loose and mellow, thus giving the plants an early opportunity of acquiring a good footing and consequently a rapid growth. Now we have never heard any practical farmer advocate winter plowing of light or sandy soils and why? Simply because they need no freezing and thawing process to bring them to planting condition, and little or no fear of worms or weeds is expressed, and the experience of many, is that on such soils, Spring work is the better. One trouble about winter plowing is that many farmers entertain the idea that they can plow in winter, even if the ground is rather wet, without injury to the soil; whereas in spring they seem to know that wet plowing will not do. Just here is a big mistake. Wet winter plowing, especially on clay lands, will show for years, and in such manner as to convince the observer that something had been done at the wrong time. If ground plowed in winter is to be sown to oats, we advocate good stirring with shovel plow or cultivator before sowing. We know this will more than pay for the time, and furthermore if time can be had to stir the ground intended for corn it will prove to be time profitably spent.

Let any farmer try the experiment of winter and spring plowing in the same field, of like soil, planted to the same crop at the same time, and if worms do not bother, the yield will settle the question. We are aware that fall and winter plowing pushes the farmer's work ahead, but as we advocate plowing the manure under, we will say haul out your accumulations in stables and yard during the Winter, spreading from the wagon

and thus save much time for spring plowing. Very little of the ammonia is lost by winter manuring and your ground will plow the easier.

FARMS TOO LARGE.

Very close observation as a practical farmer for many years has fully convinced us that many farmers of the present time are occupying more land than they have the ability to farm well. We advocate what some call "intensive farming," and such farming will always pay. Pioneer or primitive farming may do for true virgin soils, but old farms require the surer method. Let us be plain. Intensive farming means having a whole set of grass, not great patches of wire grass or weeds, means a uniform growth of wheat or other grains, not a great number of very thin spots. Weeds are our worst crop robbers, and are evidently the offspring of standing water about the roots. Here is one proof of too much land. Again, the many poor spots show a scarcity of available plant-food; insufficient cultivation and lack of drainage. The cause is too much land for you, both mentally and financially. Intensive farming means small tracts, pushed to highest producing power. It means rotation in crops, which is a partial rest to the land and a destroyer of weeds. A real farmer of the intensive class will not plant or sow an acre of land unless he has fair assurance that it contains sufficient plant-food in some form, and under ordinary conditions, will produce more than the cost of production. The real farmer will see that noxious weeds are subdued, that all rough clay spots are pulverized so that the roots of the plants can seek out their full amount of food and drink. He will see that none but the very healthiest seed is sown without stint, and in due season. Such we term intensive farming and we can be reasonably sure of good results.

When we see farms showing evidence of poor farming we easily conclude, "too much land." Many persons foolishly think, even in our day, that any person can be a farmer. Well, if we only want hard work, and poor returns and eventually a mortgage on the "old plantation," all right. But if we desire good returns for our labor and a consciousness of duty well performed, we must work with the head and hands, work intelligently. It is very true that some men have succeeded in working very large tracts of land successfully, but nature and education brought this about. We find however that the large majority of farmers are not

qualified to manage large tracts. The pioneer age of farming is past and intellectual farming is here, as our abundant crops show. When we advocate intensive or if you please, assiduous farming, we mean less manual and more mental work, more recreation or at least, less hours of drudgery. We mean good times for the farmer, which means good times for all. Why should any one desire to pay taxes and lose on his investment by half farming a large tract, when by working less land he could meet his expenses and be free from the annoyances of "always behind," poor compensation and no rest? We know that the time is not far distant, when small farms will be the rule, large ones the exception and then intensive farming will surely follow and that too, to bless the farmer's calling.

A WORD TO OUR PATRONS.

We notice in the issue of Dec. 15th of this journal that some old readers appear to be apprehensive that radical changes may be made by the new management, in the tone of the paper. We do propose changes, but only such as will in our judgment, conduce to the benefit of our patrons. Our columns will be open to contributors and advertisers of clean and fair dealing, and while we shall earnestly solicit patronage from the people of every section of this broad land of ours, we beg to assure our readers that the unclean and cloudy methods of the average quack, will never find us willing to further disreputable enterprises. The money consideration will weigh nothing with us when impure motives or filthy stuff seeks publicity through our columns. Our aim is to increase our circulation, secure advertising, interest our readers and, of course, to make a living. But to do this we feel that honest dealings and clean methods are the only sure avenues to complete and lasting success. Then have no fears; trust us at least till we do the first wrong, and if that wrong appears to you as an error of our heart, your duty will be plain, and we dare not complain when we find you seeking a purer home.

OUR COLLEGE OF AGRICULTURE.

The trustees of the Maryland Agricultural College held their quarterly meeting last month at the Institution, and was presided over by Governor Jackson. Governor-elect Brown and other distinguished persons were present. President Alvord submitted his report, showing the substantial progress made during the

past year in all the departments, thus giving bright hopes for the future.

The trustees were favorably impressed with the management and progress of the Institution, and spoke of the outlook as very promising. A number of changes in membership of the Board will soon take place, the Governor, Attorney-General, Comptroller, late President of the Senate, the ex-Speaker of the House, and State Treasurer retiring, the recently elected State officers taking their places. We are glad to learn that the average attendance of pupils is more than double of ten years past. Prejudice and ignorance are on the wane, and people are now beginning to see that study is essential to success in farming as well as in any of the professions.

We say professions, for we are now happily over the barrier that formerly kept us from the intellectual and tied us to the physical alone. We find that, as our wants increase, we must call to our aid intellectual effort, which, properly combined with physical power, will cause old "Mother Earth" to yield us the desired sufficiency, both quantity and quality.

RANKS AMONG THE BEST.

THE AMERICAN FARMER founded in 1819, by Samuel Sands, of Baltimore, has been sold to the Farmers' Publishing Company, of Middletown, this county. This company will continue its publication, and promises considerable improvement in the journal, which already ranks among the best agricultural papers in the country. We are highly gratified at the enterprise exhibited by our Middletown friends and wish them abundant success in their new undertaking.—Emmitsburg (Md.) Chronicle.

THERE are at this time seventy-four granges of the order of Patrons of Husbandry in Maryland, with a membership of 1,850, the greatest strength being in Anne Arundel and Baltimore counties. The total membership of the grange in the United States is estimated at over 1,500,000. The Baltimore Sun says "the centre around which the Maryland Grange has swung and upon which most of its efforts and attention has been spent, is the commission house on Camden street conducted for the benefit of grange members. This is now on a sound basis and its success was proved by the report of the managers."

One of the first things in opening up a new farm is to plant out plenty of trees, fruit, shade and ornamental.

MUTATIONS.

Under this head we propose to notice in a very brief manner, some of the changes which take place in the domestic animals of the Old World when transported to America. The mammals which we notice in this connection are the hog, the sheep, the goat, the ass, the horse, the cow, and the dog.

The hog, within or near the tropics of America, being allowed to wander at will for whole days in the forest, living only upon wild fruits or mast, speedily departs from his former training or domestic habits and becomes in nature much like the wild boar of Europe.

The cow in her domestic state, requires and receives all the salt she desires, but when she is turned from the feeding hand, she roams in search of this saline nourishment and becomes wild. Her udder becomes much contracted and both the quantity and quality of her milk deteriorates.

The ass, it has been found, suffers but little change either in form or habits. If he is overworked or very indifferently cared for, he becomes deformed and effeminate, but may always be termed domestic or civilized.

The horse soon loses his domesticity when turned into the woods. He will feed upon chestnuts and soon we find him with one of the distinctions of wildness, generally a sameness of color, chestnut sorrel. He acquires the amble or pace and speeds with the wind. Wild horses are very generally pacers, and domestic troopers are not fleet enough to overtake them in their ambling.

The dog seems to suffer no change of importance. In his forest life he is called wild, but the least kindness offered brings him to your hand.

The sheep in temperate lands breeds and fares much the same everywhere. It is not much inclined to leave the habitation of man. But in warmer climates the wool grows much slower, and if not shorn at the proper time, it loses its woolly coat forever, only to put on a short, glistening suit of hair, much resembling that of the goat of the same climate.

The goat, generally considered a mountaineer, seems to be better adapted to the warm valleys. In their wild state they become smaller but more agile. They also lose in milk, like the cow, and their hair becomes shorter but thicker.

Chloride of ethyl is being successfully used as a refrigerant and local anæsthetic.

Wet beds will cause paralysis in the legs of hogs.

Agriculture.

BOOK-KEEPING ON THE FARM.

On the above-named subject a writer in the *Husbandman* pointedly shows the practical results that are sure to accrue from book-keeping on the farm. Those who have never tried it will also be astonished to find the many unnecessary leaks there are that diminish the profits, and how easy it is to stop some of them and turn the tide in a more favorable direction. The first of the year is an opportune time to commence book-keeping on the farm. The writer says:

"No one who has not noted the results can fully appreciate the value of book-keeping to the farmer and his family. He is not found complaining of hard times because he discovers the small leaks and applies the remedy. He saves himself from embarrassment and his farm from the mortgage. His wife, keeping her accounts of her receipts and expenditures for butter, eggs, poultry, dry goods, groceries, etc., acquires business knowledge and sagacity, and at her husband's death does not find it necessary to call in a stranger to act as administrator, who, like a leech, sucks the life blood from the estate—the joint earnings of husband, wife and children—and finally, with the aid of lawyer and court fees, perhaps leaves the wife and children in absolute want. No; her knowledge of business principles enables her to administer her own affairs.

"The boy who is permitted to earn his spending money and taught to keep his little accounts and compare receipts and expenditures will the earlier learn the value of money and apply his wits to live within his income. Such a boy will not accumulate debts for his overworked father to pay; neither is he so likely to fall into fast company or fast living. He is educated for business, and will be able to hold his own in the battle of life."

FARM FENCES.

How to Avoid Accidents from Barbed Wire.

Heavy rail fences and expensive post and board barriers are largely displaced by barbed wire. Wire fences are often made by simply stretching five or six wires from post to post. Such a fence is nearly invisible, and there is danger of animals dashing against it when running and becoming torn by the points. Sometimes a partial remedy is effected in the one or two fence boards nailed to the posts to render the line visible,

but these are liable to become loosened and detached, and a larger number of posts is required to hold the boards.

For localities where there are many small stones scattered in the fields, and where it would be a positive advantage to get rid of some of these in constructing a small, loose riprap wall on the line of the fence and under the barbed wire, these become a visible and effective barrier. Fewer wires are needed, three being sufficient where five or six are required on level ground. If the wall is rather small, or if the barrier is to be rendered stronger and more visible, two or three furrows may be turned from the foot of the wall. As no animals will wish to crowd or lean against such a wall less strength is required in the posts; and the stones partly supporting them, the post holes need not be dug so deep, nor are very long posts required. It is hardly necessary to add that the posts are to be set before the line of stones is placed in position.

In the absence of stones a small open ditch on each side of the fence answers equally well. The line of posts is first set, and then several furrows are plowed on each side as near to it as practicable, and the loosened earth thrown up into a ridge or bank. A second plowing and a second shoveling will complete the ditches and bank. The wires are then placed on the posts and the fence is completed. If the ground on each side is heavy turf the bank may be more narrow and steep than one made wholly of loose earth, which, however, will in time become well sodded. Two men with a two-horse team will plow the furrows and make the bank thirty rods long, more or less, in a day, while the reduced amount of wire required and the shorter posts which may be used will render this fence as cheap as the one with five or six wires on level ground. The posts may be at least one rod apart, if intermediate vertical cross pieces with the lower ends nearly reaching the ground are used, to which the wires are stapled to keep them in position. Neither of these fences will produce heavy drifts, the winds passing through them sufficiently freely to prevent the accumulation.

It may be interesting to our readers to know the countries that produce the greatest number of bushels of the leading crops of Europe and the United States.

Wheat and Corn.....	United States.
Rye, Barley and Oats.....	Russia.
Potatoes.....	Prussia.

The above is according to the best information at hand and is believed to be substantially correct.

THE COST OF FARM MACHINERY.

The cost of machinery is a factor that is but little studied by the farmer. If it were studied a little more closely the machinery purchased would get more care than it generally does.

The farmer should not invest too hastily in machinery when his present supply will do his work fairly well, and he should take every care of what he does purchase that is likely to prolong its period of usefulness. Care of machinery is not all comprised in its careful use and careful housing when not in use. It includes, or should include, the preparation of the land for using it. When a harrow is used in a field rough with stones it soon goes to pieces, and the same is true of a mower or a binder. When ridges are thrown high and the intervening furrows are made deep, machinery is much sooner worn out which is used in reaping such land than if the ridges had been made less rounding and the furrows more shallow.

A great deal more attention should be given to this matter than it usually receives. One of the greatest leaks of the farm, about which the agricultural orators of to-day speak so much, is to be found in the lavish expenditure on these implements. If a mower may be made to last ten years instead of five years, the saving is very considerable, and it is not represented wholly by the saving of the price of one mower, but also includes the interest on the outlay for one mower for five years. While it would not be wise to persist in using an implement that cannot be made to do its work well, it is wise to move only with a haste that is judicious in the purchase of what is new simply because it is new.

PASTURING WINTER WHEAT.

The experience of those who have been in the habit of pasturing winter wheat for many years is all in favor of the system. Certain it is that the tendency is beneficial. Grazing the surplus growth, providing it is not too heavily stocked, destroys the eggs and larvæ of insects, keeps back the forward bunches, stiffens the straw, makes the crop stand more erect and ripens more evenly.

Fields which have been pastured by cattle, hogs or sheep have produced forty bushels to the acre, where others of the same sowing unpastured have yielded no more than thirty bushels the same season. Cattle may run on it all winter, and so may sheep or hogs, without injuring the roots or retarding the final growth and yield. It is not wise to turn in the stock till

after December, and they may run on it with benefit to both the stock and wheat until the middle of April or first of May, according to the season.

Many prefer pasturing with sheep or calves, but while these may be preferable on account of individual choice of graziers, cattle and hogs will be found just as beneficial. Horses are not desirable on the wheat pastures except where only a few are given access at a time. Under grazing is to be avoided as much as overgrazing, and a field fully stocked is treated in better shape, provided the animals are not allowed to graze it too close, than one only having a few head to cut the rapid-growing spears. Wheat pasture is a most excellent forage for young lambs. Rye may be treated similarly to wheat.

WHY MEAT COSTS MORE THAN VEGETABLES.

Meat is a manufactured product for which a large amount of raw material is required. The manufacture of meat is a process of transforming the vegetable protein, fats and carbohydrates of grass and grain into the animal protein and fat of beef, pork and mutton. The same principle applies in the production of milk, eggs and other animal foods. In the most economical feeding of animals it takes a number of pounds of hay or corn to make a pound of beef or pork. In other words, let the farmer make animal protein and fat from vegetable materials in the best way he can and still he must consume a large quantity of soil product to produce a small amount of animal food. Hence animal foods are costlier than vegetable.

This is the simple explanation of the fact that in most parts of the world meat is the food of only the well-to-do, while the poor live almost entirely on vegetable food. Thus ordinary people in Europe eat little meat, and in India and China they have none at all. It is hard enough for them to get the nutriment they need in vegetable forms. Meats they cannot afford.—Professor Atwater in Century.

The wheat crop of 1891 is the greatest in our history, the tobacco crop is the greatest. The corn crop of 1891 is the second greatest, and the cotton crop of 1891 is equal to the greatest in quantity and the equal of the best in quality. The vegetable crop was never better, and the fruit crop was never so prolific. The orange crops of Florida and California are so fine that importations of oranges from the Mediterranean are about shut out.

ENGLISH SPARROWS.

Some Methods of Destroying these Pesticiferous Birds.

The United States Department of Agriculture recommends the following treatment: Dissolve arseniate of soda in warm water, at the rate of an ounce to a pint; pour this upon as much wheat as it will cover in a vessel which can be closed so as to prevent evaporation, and allow it to soak at least twenty-four hours. Dry the wheat so prepared, and it is ready for use. Three kernels of this will kill. Winter is the best time for operations. Other birds are then absent, and sparrows are hungry, alighting in flocks in the streets after passing teams and along railroad tracks, where grain is scattered from wagons and cars. Here poisoned wheat may be administered with wholesale destruction to them, and little danger of harm to anything else.

If it is found that the birds are too wary to take the poisoned grain at first, they can be led up to it by feeding them at the same hour of the day for a few days with sound grain as a preliminary. When they are used to it, and off their guard, throw down a little poisoned wheat—not too much at once, but just enough for them to eat before they have found out that there is anything wrong—for you can not catch them all at the one attempt. By this means a large percentage is got rid of at one time. Then begin with the sound grain again, and after two or three days use more poison. By this means of alternating non-poisoned grain with the other article, sparrows may be killed all through the winter months just as fast as they come in from other places, and in time be almost annihilated.

Farmers work in good weather often beyond proper hours—that is to say, beyond the safe limit of endurance, because there are conditions that require prolonged effort. But there must be compensation. To balance each hour of overwork a full hour, or more, should be taken out of time that otherwise might be used in labor. Bend a sapling and it will fly back when released; but keep it bent a week and it will not resume its former shape. So with a hardworking farmer who takes too little time for rest.

The farmers are said to be more independent than any other class. Independence is not the lot of any class, in fact, for there are obstacles to be met within all branches of industry, to overcome which the intelligence and capacity of each individual must be considered. All branches of industry have their advantages and disadvantages.

BAD USE OF WEEDS.

It is a good thing to mow the weeds on fields from which cultivated crops have been removed, but it is possible to make a bad use of the weeds after they have been cut. Sometimes they are thrown into the yards connected with the barns or the hog pens. This is very unwise, as many weeds perfect their seeds sufficiently to insure germination long before they appear to be mature. These seeds have a wonderful degree of vitality and multitudes of them pass through the manure heap uninjured. From the yards they are carried, in the manure, to the fields and are thus scattered over the farm. When the weeds are taken from potato fields upon which Paris green has been used for destroying the Colorado beetle there is some danger of injury to the animals which frequent the yards. We have known weeds, in which the "wild wormwood" predominated, to be thrown into a roadway where cows would have access to them on their way to and from the pasture. While cows will not eat a great quantity of such stuff if they can get better material, they like to work over it and they sometimes eat enough to impair the quality of their milk and injure the butter which is made therefrom. A cow needs to eat but very few weeds to seriously injure the milk which she will give at the next milking. The less of such rough forage she gets the better for herself and also for her owner. It is best to keep the weeds away from her.—American Dairyman.

INVENTIONS AND FARM MACHINERY.

Every trade, profession and employment can show hundreds of inventions which have brought fortunes to the inventors. In agriculture the inventor have made a complete revolution. Work that was done by hand in a very laborious way dozens of years ago is now done in one-third of the time by steam and machinery.

Even within the memory of living farmers there has been such a transformation in their work that their methods appear antiquated and useless. Hundreds of new inventions in the same line are annually being patented, and the farming of the future will be reduced to such a science that one is unable to predict how our crops will be raised and harvested.—George E. Walsh in New York Epoch.

The first silo in this country was an accident. In 1875 Mr. C. W. Mills, of New Jersey, buried a lot of green corn fodder in pits under five feet of earth to get it out of the way.

In the Spring he began to dig it out for manure, and found he had a valuable food for cattle. In 1876 brick silos were made and filled in Maryland, which kept the fodder well. Now the number of silos in the United States is estimated at over 7,000.

It has been estimated that Australia loses nearly £2,000,000 annually through the rust of its wheat crop.

Horticulture.**FLOWERS.**

Love in the myrtle bloom is seen,
Remembrance to the violet clings;
Peace brightens in the olive green,
Hope from the half-closed iris springs,
And vict'ry on the laurel grows,
But woman blushes in the rose.

PRUNING THE TREES.

The murderous work of ignorance in the direction of pruning trees, costs the fruit grower a vast deal of money. It is the theory of ignorance that a fruit tree must have about so much surgery performed upon it whether there is any reason for it or not. Between pruning too little and pruning too much the orchards of the country have been greatly injured during the last fifty years. We have seen men cut off large limbs of fruit trees without the slightest apparent purpose, except to do about so much pruning. A limb should never be removed from a fruit tree unless there is a well defined, intelligent purpose, any more than the limb of a person should be removed without a necessity existing for its removal. The reckless manner in which some people prune is on a par with the action of a surgeon who should insist on cutting off a human limb every now and then, upon the theory that a limb should be amputated about so often anyhow. When trees are small, before they come into full bearing, they may be judiciously pruned. But a full grown tree should never lose a limb unless there is a well defined necessity for doing it. It was pretty difficult work to induce people years ago to prune to the extent that pruning was demanded. We can remember when we were boys that an orchard was set out and left to itself. Between a lack of judicious pruning and a neglect to fertilize, the orchards wore out long before there was any necessity of their doing so. But in this age of intelligence and of the importance of orcharding, there should be a happy medium between

butchering our trees and letting them run wild. It may sometimes be desirable to remove a limb of a tree that causes inconvenience, but with the exception of properly pruning young trees, the man who is determined to do a lot of pruning every year upon the supposition that he is doing a scientific horticultural work, ought to be restrained in some way.

FLOWERS THAT TURN WITH THE SUN.

That sunflowers turn with the sun is about as true as that any other flowers similarly turn. In the growth of plants the flower stems take a spiral motion. In many cases the uncoiling is finished by the time the flowers open; but in many cases it continues for a short time longer. Prof. W. A. Kellerman, in a recent issue of the Kansas Academy of Science, has been testing how far the common sunflower "turns to the sun." He found 87 per cent. of the heads, while in bloom, show some movement by day, and a less percentage at night. He also found that 13 per cent. had a movement somewhat toward the west, and eight per cent. toward the east. The night motion was 21 per cent. eastward and eight westward. The difference would show, if it were at all necessary, that there is no heliotropism in the case. But the knowledge that the motion is a mere uncoiling, and that there are continuous alternations in the direction of the spirals in the growing inflorescence of plants, explains the supposed difficulty.—[New York Independent.]

If there were no money to be made from the pursuit of horticulture, it would be a hopeless task to induce the average individual to engage in it. The Western Rural, while acknowledging the great good that is to be found in human nature, never loses sight of the fact that it is selfish and that unfortunately money is the idol of the world. Yet it would urge the pursuit of horticulture if a cent of profit never came from it. Its conduciveness to health both as a pursuit and in the matter of furnishing a palatable and healthful food make it a desirable business independent of a money consideration. There is an inspiration in growing fruit and flowers. The staple crops of the farm do not furnish any such inspiration in their cultivation. The wheat field and the corn field are the hard, unsentimental facts of the farm. They are looked upon as the source of profit and the occasion of severe toil on the part of the farmer. Seldom do they inspire a thought above that

of money getting. The withered flower or the injured apple, pear or peach excite, in the heart of the lover of flowers and of the admirer of growing fruit, a sincere sorrow and an outflow of sympathy. The blooming fragrant rose, eloquent with beauty and inspiring in influence, lifts the appreciative soul into a higher realm; it mellows the hard places of one's nature and sweetens the rough corners of character. The ripening fruit in the orchard has a similar influence. But a ruined grain field prompts just one train of thought: There is so much money lost, while a ripening field of grain signifies just so much money coming, if the railroads, elevators and middlemen generally do not steal it all.

Hence we have always advocated horticulture because of its ennobling influences. We have none too many such influences surrounding us. Money-making is a necessary item, but it is by no means all there is to life. Manhood is too noble to devote its entire energies to money getting.

—Western Rural.

HORTICULTURAL NOTES.

Trees are out of place in the garden.

The orchard should be located near the dwelling and at least a short distance from the road.

It is a good plan now to gather together all of the rubbish, weeds, stalks or grass, and burn.

Cherry trees may be planted a rod apart along the sides of the orchard and often along the fences.

Parsley, pepper and tomato plants can be kept growing all winter if put in boxes or pots and treated the same as window or house plants.

As soon as the ground freezes it is best to apply mulch wherever needed, and also give extra covering to fruit and vegetable pits.

A quarter of an ounce of sulphide of potash dissolved in a gallon of water and applied on the affected plants with a fine rose syringe, will destroy mildew on roses, chrysanthemums or other green house plants.

Darken up the cellar. Nearly or quite all kinds of fruit and vegetables keep better in the dark than in the light, and a little care in this respect will often avoid considerable loss, and especially with all kinds of root crops.

When saving vegetable seed for next year's sowing, get only the best. Lima and string beans and peas, which have been missed in gathering for the table, are not the ones to collect for seeds. Get the best.

Many years ago, it was the belief of gardeners, that to take hold of a cabbage and pull it strong enough to break a few of its roots, aided it to form a larger head. This accords with recent experiments in a U. S. Station, which resulted in showing that cabbages slightly tilted over with the plow in the Fall, produced large heads.

THE IRISH POTATO.

For this well known tuber we can only speak of its good qualities, for it is a vegetable for which we could not find a substitute. We will endeavor to notice some of its qualities.

It does not unduly spur the appetite to demand more than can be properly digested by the stomach. This is a great point in its favor. Even the best varieties are not liable to be eaten to excess.

There is probably no kind of food that offers a more healthful proportion of bulk and nutriment. It gives about 25 per cent nutriment; whereas, barley gives 83, wheat 85, rice 90, beans and peas from 88 to 94. This fact renders the potato easy of digestion, thus avoiding that terrible disease—dyspepsia.

The potato contains certain parts of watery substance in such proportions to its nutriment as to furnish man and beast, with both food and drink. This is a great convenience. It is easily grown and cooked; also a very cheap article of food. Hence it goes towards supporting a dense population, and is also a great blessing to the poor.

It does not exhaust the soil like most vegetables and grains, but leaves it in excellent condition for the succeeding crop.

You can easily obtain new varieties of the potato from the seed balls. It requires about three years to bring a new variety to maturity. It is very easily preserved, whether dried like fruit, or not; whether reduced to farina or starch, or kept in its first state. It stands next to bread in its general use in most civilized countries and its thorough cultivation should never be neglected. B.

Live Stock.

HORSES.

Many years ago an eminent farrier made the following observations about horses and we feel to add that from our experience we heartily endorse every word.

The pulse of a horse in health is

about 40 beats per minute, and may be felt by placing the finger gently upon the temporal artery which is about one inch or more back from the corner of the eye.

"Horses cannot vomit, cannot belch wind from the stomach, and are therefore subject to wind colic.

"When a horse has been over-ridden, bloody spots may be seen in the whites of his eyes.

"A limber dock is sure evidence of a limber back; that is a weak one.

"A horse that is hardy and good for business has a short back-bone ending forward of the hip bones.

"A decoction of white oak bark will kill botts by tanning them, and they will become so shrivelled as scarcely to be discernible when discharged.

"The chief signs of a good horse are these: The eyes set apart in the head, and large and bright; the quirl high in the forehead; one or two in the neck is also a good sign; the neck well set on high; the shoulder blades rather high and converging to a joint; the breast full and large, and so also behind; the body round, for flat bodied or slab-sided horses are weak natured; the dock stiff going wide behind, for if the gambols knock together it shows that the horse is feeble; also chewing the bit when provoked, is a very good sign.

"It is a Spanish proverb, that "a dapple gray will sooner die than tire."

The above we think worthy the perusal of our farmers generally.

There is money in the winter feeding of sheep by the small farmer, even when there is none in the feeding of cattle. Ewes may be kept to raise winter lambs, or a few wethers at a time may be bought and fattened for the mutton market. When they are in good condition both their flesh and wool are profitable.

In buying breeding stock of any kind, see that the quality of the animal is as good as its pedigree. A poor animal with a good pedigree is but a poor animal after all, and is certainly worth no more, and probably much less, than a good animal without a pedigree at all.

The quiet cow, the friendly hen, and the peaceable horse, give the largest returns with the least expense.

Don't let the store hogs go into winter quarters infested with lice. Clear out the pests with lard thinned with crude oil or kerosene.

The Inoculation Experiment for Hog Cholera.

The AMERICAN FARMER is in receipt of the following article from the Bureau of Animal Industry of Washington, D. C., which we think will be of interest to our readers.

"The experiment at Ottawa, Ill., to test the value of inoculation as a preventive for hog cholera has now progressed sufficiently to allow a statement of facts, which will settle one of the points at issue, and probably the only one which can now be determined from this test. The report shows that 55 hogs were purchased (instead of 60, as originally proposed) and divided into three lots. Eighteen were inoculated by Mr. Cadwell, who was instructed by Mr. Billings, and who strictly followed the latter's method; 18 were inoculated by Dr. Schroeder, according to the method used by the Bureau of Animal Industry, and 19 were not inoculated and were held to determine whether the animals had been exposed to disease previous to inoculation, and whether the inoculated animals resisted the disease better than those which had not been inoculated. The inoculations were made on November 28, and the two inoculated lots were then put in the same inclosure, the animals not inoculated being kept by themselves. One of the hogs inoculated by Mr. Cadwell according to Billings' method was sick and refused its feed on December 8, and on the morning of December 10, it was found dead. On December 11, another hog inoculated by Mr. Cadwell died, and on December 13, two more hogs inoculated by Mr. Cadwell were found dead. None of the hogs inoculated according to the method of the Bureau of Animal Industry had died at the time the last report was received.

As the first hog died 12 days after inoculation, the second 13 days after inoculation, and the third and fourth 15 days after inoculation, and as the hogs not inoculated are all well, and none of those inoculated by the Bureau have died, it is conclusively shown that the disease was caused by the inoculation made by Mr. Cadwell. All of the inoculated hogs were exposed to these animals in which the disease developed from the inoculation, and as a sufficient time had not elapsed for them to receive any protection, it would not be surprising if there should be a considerable percentage of loss in each of the inoculated lots. This premature exposure, of course, prevents any positive information being obtained from this experiment as to whether there is any marked degree of protection conferred by inoculation.

The results already obtained demonstrate the danger of spreading the

disease by inoculation, and particularly by the method used and recommended by Mr. Billings. This danger has been indicated by other inoculations made in Nebraska and Illinois, but it has never before been so clearly and incontestably proved."

TREATING STOCK WELL.

A petted cow is almost always a good milker, and gentle to the party milking her. The fact that she is petted secures her greater variety of food. She eats more, increases her digestive powers, and when the time comes to turn the food she eats into rich milk, she is able to do it. The necessity for treating dairy stock well is the bar to wholesale dairying, except on the co-operative plan. It is not easy now to hire help that will not sometimes abuse animals it is put in charge of.

EARLY LAMBS.

If early lambs are expected the ewes should have plenty of good hay, and if possible a few roots, but they also will do better without grain unless the hay is of poor quality. Those which are expected to drop their lambs first should be separated from the others and given plenty of room. In fact, none of them should be crowded, and none should be allowed to be robbed of their food by stronger companions.

According to Census Bulletin No. 117, the live stock business on western ranges is one of considerable magnitude. June 1, 1890, there were upon these ranges 517,128 horses, 5,433 mules, 14,109 asses and burros, 6,828,182 cattle, 6,676,902 sheep, and 17,276 hogs. The sales for 1889 footed up as follows: Horses \$1,418,205, cattle \$17,913,712, sheep \$2,669,663, and hogs \$27,132; grand total of sales \$22,028,712. Number of men employed on these ranges is given at 15,390, but the wages are not stated. Notwithstanding the loss of calves by wild animals and alligators, said to be 5 per cent., the industry was more prosperous in 1889 and since then for a number of years previous. The live stock business on farms will be reported in other bulletins.

It may require study to master the art of sheep keeping, but once learned, the knowledge will stand by a man through many years of satisfaction and profit. No domestic animal makes less trouble, costs so little for food and shelter, and returns such frequent and gratifying winnings from the farm.—Farm Journal.

The breeding and handling of fast horses is a proper branch of the live stock industry, but it is one that the average farmer should let severely alone. It is a business that should be engaged in only by men of ample means, who are able to stand large losses; but it has a tempting aspect when we learn that a single horse farm near Lexington, Ky., had an income of about \$200,000 last year. This amount included the sale of stock and the earnings of five stallions.

Many owners and drivers of horses will confess that their animals work better and do better when allowed to carry the head in a natural position, but they check them for looks. What a mistaken idea! All men admire high style if it is natural, but when a horse's head is pulled higher than his formation justifies, he shows it in every movement, and instead of adding to his beauty it greatly detracts from it in the eyes of every man that is a judge of form.

Can any of our horsemen vouch for this? An Alabama farmer says that after a horse is nine years old a wrinkle comes on the eye-lid, at the upper corner of the lower lid, and every year thereafter he has one well-defined wrinkle for each year of his age over nine. If, for instance, a horse has three wrinkles, he is twelve; if four, thirteen. Add the number of wrinkles to nine and you will always get at it.

A correspondent of OUR DUMB ANIMALS says that the way to start a balky horse is to take up one of his fore feet and strike the shoe a few times with a stone. He claims to have started several horses in this way which had stubbornly resisted more violent efforts to make them move. He also says that he has never known this simple method to fail.

Raise the choice fall calf. It will be ready to go to pasture when spring comes. If scours are troublesome on winter feed, give a teaspoonful of ground allspice.

In the Jersey cattle sale at Muncie, Ind., the highest priced bull calf (6 months old) brought \$310; the highest priced cow (2½ years old), \$275.

What sane man would deliberately waste a quart or two of good new milk? And yet many do this very thing by being harsh with the cow, and still consider their minds sound,

CAUSE OF HOG CHOLERA.

It is claimed by men who ought to be able to get pretty near the truth of the matter that ten million hogs are lost in this country every year from hog cholera. Though it is probable that the term cholera is made to cover some other disease, the fact remains that the mortality among hogs is appalling and that the farmers and stock-owners are suffering enormous losses from this cause. It is pretty hard doctoring hogs for any trouble, and experience has shown that it is very difficult checking a virulent disorder when it appears among this class of animals. Means of prevention are a good deal more promising than efforts to cure such a disease. Indeed, it is very probable that nine-tenths of the losses now caused by the so-called hog cholera could be prevented by a reasonable degree of attention to the food and surroundings of the animals. Too much of the food given to hogs is altogether unfit for any animal to eat.

This is especially true in the summer and fall, when swill that is sour, and sometimes well-nigh rotten, is often supplied. Such food contains disease germs in immense numbers and it is not a matter of surprise that many of the animals eating it lose health and life. Then, too, there are multitudes of hogs which have a better quality of food but which have little variety. This, together with the fact that the food is highly concentrated, often leads to bad results. When, as is too often the case, the pens and yards are foul and muddy, the evils of injudicious feeding are greatly intensified. Such causes of disease and loss ought not to be allowed to exist, and the man who is a loser from them should feel that he has invited the disaster from which he suffers.—[*American Dairyman*.]

Agriculture.

(Continued from Page 6.)

FARMERS' OPPORTUNITY.

BY THE EDITOR.

In our issue of December 15th, we noticed the call of Judge Stake, President of the Farmers' Association of Maryland. The convention is to be held in Baltimore City on the 13th of this month and all Agricultural Societies, Farmers' Clubs, Granger's Alliances and other associations interested in agriculture should heed this call and endeavor to have themselves properly and intelligently represented on that occasion. We understand that the convention will be in session for three days thus giving

ample time for thorough discussion of all matters of importance pertaining to farmers interests. Other questions besides purely agricultural matters will be discussed by able men. Improved roads, new assessment and taxation will be given attention, together with opinions and suggestions in regard to the Columbian Exposition of 1893. These matters are of vital importance to the people generally and inasmuch as the Legislature will be in session at the time, it behooves us to push these matters with the energy they require. Our law-makers cannot afford to overlook the demands of farmers if unitedly and intelligently presented. We have the power to convince them that we are, not only an important part of the people, but also a living factor of essential worth. Having this power, let action be our watchword 'till our rights and worth be fully appreciated and our labors in the cause of the many be duly compensated. We have no information as regards the exact order in which each subject will be taken up, but understand that the programme will be in good taste and also very interesting.

A FARMER'S CHEAP ICE-HOUSE.

Every farmer may by a little extra labor and the expenditure of a small sum of money provide himself with that great necessary and comfort—an ice-house. In writing on this subject, urging all farmers to build an ice house, the *New England Farmer* says:

"The sills of the building should rest on the ground or on a wall built for them, allowing no air to enter underneath. We would lay tile a foot below the surface inside, with its outlet some distance away, to keep the bottom dry, but tile should not open into the building to admit air. A foundation of at least a foot deep of the packing material—sawdust, tan or straw—should be laid over the bottom, on which to build the pile of ice, and the blocks should be cut as nearly as possible of uniform size so as to pack closely, and it is well to go over each layer as it is put in and fill all cracks with pounded ice so as to make the pile as near solid as possible. When the pile is finished, or as it progresses, the filling between it and the sides of the building should be made and tramped down as solidly as possible and a covering of at least two feet in depth be made over all. Ventilation should be provided for by openings in the gables, or a ventilating shaft going up through the roof to permit the escape of the moist air which gathers above the ice. The

door should be, for convenience, made in two sections, an upper and lower, with boards laid across on the inside of the frame holding the packing material in place.

"The proper size depends upon the amount of ice that will be required. Ice will measure about forty cubic feet to the ton, and ten tons would be a liberal supply for family use. This would be equivalent to a pile 8 feet long, 8 feet wide and 6½ feet high. If we allow two feet on all sides for packing space, the building to hold this amount in the form above given would need to be 12 by 12 feet, with nine-foot posts. A door in the gable would be needed for putting in the top layers and taking out ice early in the season. A good way for a cheap building would be to set posts in the ground, three on a side, (except the end where the doors are,) with 2 by 4-inch pieces for plate and middle and bottom girths, and board up and down and batten, banking up at the bottom to exclude air. The roof should project considerably on all sides, so as to shade the sides, and if it could be built under the shade of trees it would be all the better. When expense is no object and a permanent structure is desired, a brick or stone foundation should be put in on which to lay the sills, which should be bedded in mortar, and double walls can be made by using 2 by 8 or 2 by 12 for studding and filling the space between the outside and inside boarding. Ice should be cut and put up only in freezing weather. If cut and handled when the temperature is above freezing, the blocks splinter and crack, and its keeping qualities are considerably injured."

ROTATION OF CROPS.

BY L. F. KEFAUVER, MARYLAND.

The fertility or the bareness of a soil depends upon its constituent parts. If it abounds in those elements which are necessary for the nourishment of the crops to be grown upon it, they will flourish and yield abundant returns for the labor bestowed upon them; but if any of those substances are wanting which constitute the food of the different plants grown, the yield will be small, and the quality inferior. Therefore care must be taken not to exhaust a generous soil by growing the same crop upon it for a succession of years, and no soil, however productive in the past, which has been drained of those combinations of matter which form the proper food of the plants grown upon it, can continue to sustain them in a flourishing condition. Right here many farmers make their greatest mistake; instead of

adopting a successful system of rotation, they have we might say no system at all. Why is it, the average yield per acre of produce grown in our own state and others is so small? Is it caused by cultivating ground that is naturally poor, or is it for a want of a better system of farming? I have noticed in some sections of our state (Md.) and in some of the eastern counties of Va., the farmers seem to have lost sight of, and are very slow to adopt a proper system of rotation of crops. The plan of many is, to cultivate a piece of ground in corn, wheat, or tobacco, as long as it will produce, with the aid of commercial fertilizers, and when the ground fails to produce a profitable crop, it is abandoned, or as they say left to rest, when another piece is taken up to receive the same treatment. They don't seem to realize the value of clover and pay but little or no attention to it, thereby losing the benefits of one of the most valuable grasses in our country. This system of farming must, in a very few years, exhaust and make barren the most prolific soil; but where a system of alternate husbandry is properly carried out, and the several processes of labor which belong to it are well executed, land will very rarely fail to produce fair crops. The following system is very generally adopted in the best cultivated counties of Maryland and Pennsylvania. After a grass or clover field has been mowed or pastured, one year it is plowed late in autumn, or in the early spring, and planted with corn. When this crop is cut the ground is harrowed until it becomes perfectly level, and sown to wheat. If timothy is to accompany the clover, the former is sown with the wheat, and the latter early the following spring; if the grass fails, as it does sometimes, it is again plowed for wheat and seeded with grass. But rarely is the ground planted to corn for two successive years, a catch of clover is usually more sure sown to wheat following corn. If grass land is plowed for wheat, corn often follows, wheat follows the corn, and is again sown with grass. Though the system of rotation is adapted to every soil, no particular rotation can be adopted which will answer at all times, much depending on climatic changes, &c. But wherever the system of rotation is properly carried out, land will very rarely become exhausted.

PURE SEED CEREALS.

BY C. OF INDIANA.

Every farmer knows the importance of selecting pure seed, and yet many do not know how or where to get it. Our wheat, for instance, in

most cases contains much filth which can easily be detected, but in the seeder we more frequently find many small grains and plump but spongy ones.

It requires an expert to pick out the latter, from the fact that they look fine and plump.

Now, let us see if we can throw light on this matter that will do the farmer good. If we take the pains to examine our wheat when stooling or branching we find some stalks very vigorous and taller than others of the same stool; also finding that the vigorous or tallest stalks give out the earliest bloom. Now, we follow on till harvest, then we see the first bloom at its best. Here we find the plump, bright, heavy kernel of the strongest germ power. This is the grain that can always be relied on, and this only. The other grains ripen later and are weakly germed. True, many of these inferior grains often sprout and give promise of a good crop, but they either fail to fill or remain as an undergrowth, barely worth the gathering. It is not uncommon for one grain to produce 10 heads of from 15 to 40 grains each and in many cases 15 or more heads of 30 grains each. We often find as much as two bushels sown to the acre. Now we maintain that fully one-half of that either never germinates at all, or is eventually choked out by the stronger stools, which have sprung from the first bloom grains. If we sow one bushel of real or first bloom seed, and each grain giving one stalk only, the head giving 25 grains, we will realize about 25 bushels per acre. If for instance we notice a grain that sends up 5 heads, other grains have not and could not have grown at all, and if a grain produces 10 stalks it is certain that a number of grains under its stool were thrown away. It may be argued that many of these seed grains are smaller than the seed which was sown but this is amply made up by the heads, that contain more than the 25 grains spoken of. Now we see the great amount of seed which is wasted every year, that could have been used for feed on the farm or sold for something at least paying much better than "sowing to the wind."

If farmers were to adopt this plan, the yield in this great country of ours, would be very much less than at present, but we should hear much less about over production and low prices. This shortage from year to year would have the tendency to bring about earnest farming and increased acreage, thus opening up new lands for the use of our rapidly increasing population. We notice further in this pure or first-bloom

seed that it applies to all cereals. It is well known that any seed sown, passes into the watery or soft state, and rots before it appears in the blade. Now the firm grain decays much slower than the spongy one, thus supporting the sprout, until it becomes self-sustaining.

The farmer should also take into account, the amount of fertilizers really thrown away upon seed that cannot, even if soil and season smile, give him more than meager returns.

—o—
 QUITE a number of valuable communications from experienced writers are now on our desk and we shall take pleasure in publishing them, in our issue of January 15th.

BETTER TILLAGE NEEDED.

The recent report of the Agricultural Department so clearly demonstrates that the best farming lands are not always more profitable than some not so fertile as to excite surprise. The report for 1891, which was a most prosperous year, shows that the average number of bushels of corn grown on each acre is only 26.6 bushels. Strange to say, New England led, her lowest average (New Hampshire and Connecticut) being 35.7 bushels, with Massachusetts the highest, with 40 bushels. We grow only 93.9 bushels of potatoes on an acre, Maine and the new State of Washington leading with 125 bushels each, while Massachusetts grows 1,600 pounds of tobacco on an acre and Kentucky only 780 pounds. The yield of hay is highest in Vermont, at 1.60 tons per acre. These facts are curious in the face of the excitement over the abandoned farms of New England, but they show that the productions per acre in this country, great as they may be as a whole, are really very low.

If New England, with her short-growing season and stone land, with more labor required to produce crops than in other sections, can exceed the average of the best corn-producing States of the West, where the soils are rich and easily cultivated, there is a wide field open to the farmers of all sections for improvement. It has been demonstrated on special plots that 150 bushels of corn, five tons of hay, and over 1,000 bushels of potatoes can be grown on an acre, and though such experiments have not been extended to large areas, it is confidently believed that such yields are possible on farms, and the results at least point out to farmers that they should not be satisfied unless their farms produce more and more each year.

The soil and seasons are not at fault. There is no reason why Florida, which has a longer growing season than

New England, should produce only eleven bushels of corn per acre, nor should Massachusetts produce twice as much tobacco per acre as Virginia, Kentucky, Maryland or Tennessee, where the soil is well adapted to that product. The success of New England is due to the fact that her lands are such as to demand better tillage. The very difficulties which the farmers of that section encounter compel them to use more judgment. In fact, "brain work" is one of their potent factors of success. Even the drawbacks of climate, and the lack of fertility of the soil, did not prevent New England from leading, and this fact is a lesson which well deserves the consideration of farmers.—*Philadelphia Record*.

SANDY SPRING, Dec. 15, 1891.

Editors American Farmer:

That Veteran Farmer's Association known as the Enterprise Club of Montgomery County, Maryland, convened on Saturday, the 12th of Dec., at Whitehall, the residence of Samuel Hopkins, just across the line in Howard County.

The President, R. Rowland Moore, called the meeting to order, and found fourteen of the sixteen members on hand; the two absentees are doing duty for "Uncle Sam," one in the Custom House in Baltimore, and the other as Indian Inspector in the far West, and they were excused upon the ground of justifiable absence. John Thomas, Frank Snowden and Charles F. Kirk, all of the Montgomery Club, were acceptable with us as guests. Our first duty, after roll-call, was to visit our hosts broad acres commencing by inspecting the new water works. The wind mill has been discarded for a novel device which is erected, or rather submerged in the little stream about six hundred yards from the dwelling. It consists of a cast-iron frame swung on a pivot, a water chamber on one arm and a counter-weight of stone on the other; a little fore-bay conducts the water into the water-chamber, when full it drops of its own weight and the water runs out, the counter-weight of stone draws down and lifts the empty water-chamber ready to receive a fresh supply of water and at the same time it draws on the wire connected with the pump at the house. Thus a constant supply of fresh, cool water is furnished for family, dairy and stable purposes. After examining and admiring this primitive, but effective and ingenious scheme for raising water, a patent for which has been granted a resident of our own county, we went to the barn nearest the house and saw where the horses were watered in a large stone and

cement cistern very convenient to the stables. The corn house was well filled with large, fine ears of corn, as was another house across the way, this crop averaging about twelve barrels to the acre. The animals were unwillingly slighted as early darkness prevented us from seeing them, but our host always has fine stock, making a specialty of raising colts and horses for sale.

After ten, which is a prominent feature with us, and on this occasion, no exception to the rule, we discussed many and various topics, of these the following is a partial report: Our host, whose duty it was to have prepared an essay offered in lieu thereof a few valuable remarks in reference to the profit of farming. He thought the business had been a little better for the past two years, but there was need and room for improvement. He suggested experimenting in new crops, said he had tried beans the past year with success, raising about ten bushels on a quarter of an acre and had been offered \$2.50 per bushel for them. He also raises both male and female calves, feeding them and keeping them thrifty on shelled corn in addition to hay. The calves and colts run at large in fields with access to hay stacks in winter.

Robert M. Stabler asked if it would do to dump stone from a cart into a ditch without placing, and expect them to make a satisfactory filling for a drain-ditch. Wm. W. Moore said that stone thus dumped in, helter skelter, make a more satisfactory job than either tile or poles, the former on his farm filled up in two months with roots. Samuel Hopkins preferred poles in the bottom with stone and fine brush or straw on top; he said it was all important to have the ditch deep, in order to drain the land thoroughly, thinks this the secret of success. As M. Stabler recommends the best chestnut timber for poles, four or five in the bottom of the ditch, then stone broken fine on top, will make a good average ditch. Edward P. Thomas said he would consider it lost time to dump stone in a ditch for the purpose of draining his farm; he preferred poles of chestnut with stone on top, well broken, to any other method. Roger B. Farquhar expressed his astonishment that farmers could not agree even on the most simple matters. From many years of practical experience he could testify that stone dumped in promiscuously, without stone, brush or shavings on top, but with stone broken fine next to the surface, was with him the ideal ditch. Not much encouragement was given by members to use drain tile in ditches.

The Secretary announced that the election of officers was next in order.

After some discussion it was decided to do away with the office of President, depending instead on the old plan of appointing a foreman at each meeting of the club. Thomas J. Lea, receiving nearly every vote, was declared elected Secretary on the first ballot.

Roger B. Farquhar gave in his report of sheep-husbandry for the year, as follows:

January 1st, 1891.

103 sheep.....	cost \$473 80	
122 lambs.....	sold for \$	504 86
462 lbs. wool.....	" "	108 32
22 sheep.....	" "	109 25
74 sheep on hand.....	valued at	352 40

\$1,074 83

Less cost of sheep..... 473 80

Gain..... \$ 601 03

This was considered a fair margin for profit.

After other valuable interchange of thought and experience the club adjourned. Very respectfully,

N. E. D.

On the farm it is not always possible to avoid making mistakes, but care should always be taken to as far as possible keep from repeating them.

Dairy.

MILK COWS.

Farmers who breed their own milk cows need to keep constantly in mind, says the *Jersey Bulletin*, that the one fundamental object is increased capacity and improved quality, which can only be secured by maintaining and strengthening constitutional vigor. There is an enormous drain on the cow that is giving a generous flow of rich milk, and if at the same time she is nourishing a foetal calf she needs an abundant supply of nutritious and appetizing food, comfortable quarters and kind attention. Her feed and care should never be measured simply by the money returns from her milk. She is all the time doing something more than making milk, and if she is well bred this extra something is of much more value than the milk she makes, be that ever so much or ever so rich. She needs and is entitled to a generous supply of food for calf. Plenty of food is just as essential to the calf before it is dropped as afterward. Do not forget this, and give cows a plentiful supply of nutritious food every day in the year, whether they are giving milk or not, whether they are on grass or not, taking care only that you do not feed them indiscreetly, starving today, gorging to-morrow.

GARGET.

The question is often asked why a certain cow milks pure blood in lieu of pure milk, and at the same time a remedy is asked. The trouble is an inflammatory state of the udder, termed garget by dairymen, and understood by doctors in general under the term *mammitis*, which is inflammation of the milk-secreting glands and vessels. The udder is hot, tender, red and swollen, the cow refuses her feed, her nose is dry, her bowels constipated, her urine high-colored and scanty. She has an anxious look about her, and should her udder be touched she will resent by kicking. This trouble is due to some ill-condition of the system, as well as local cause, following often after the cow has calved and not cleansed herself properly. At times only one-quarter of the bag is affected, and in such cases a blow may occasion the trouble, the cow at the time being in excellent health. Again, a cow may lie down in a wet spot and a chill may be given the quarter exposed. When it is considered how active the blood vessels are in conveying blood to the milk vessels it can be easily realized how inflammation may follow, with engorgement of the vessels and swelling as a consequence.

Sometimes a teat becomes *blind*, as it is termed; in other words, stopped up, and this may be due to lodgment of unhealthy milk at or near the valvular entrance to the teat. Again there are certain diseases which are always ushered in with the stoppage of the secretion of milk. Indeed, the dairyman's first idea that a cow is in ill-health is when her milk stops on her, which sooner or later terminates in garget.

When asked to give treatment for a case it is necessary to conjecture, unless correspondents are fairly clear in their description of symptoms and history of the case. For such cases as the first described there is need of treatment to purify the *system*, and when this is done the milk rights itself. On the other hand, when the inflamed udder is the result of violence, local treatment is demanded, hot fomentations, followed by camphorated embrocation.

If due to a plugging up of the teat then the obstruction must be removed, and at times this may be difficult for the surgeon has to open the teat at the seat of trouble, and then careful treatment must follow the operation.

In all cases the milk syphon is needed, for the udder is too painful to allow manipulation as in health. These syphons are so constructed that they can be left in the duct, thus allowing the secretion to run off and

preventing irritation. No dairy is complete without half a dozen of these instruments. Of course they should not be used unless absolutely needed, and then care should be exercised in their use, employing gentle pressure and rotary movement to get them up, and the syphon should be oiled first.—[*Baltimore Sun*.]

AVERAGE milk contains 87 to 88 per cent. of water; this is the water of composition. Good butter contains 12 to 18 per cent. of water; this is also water of composition. No one has ever seen butter free from water. It is therefore as absurd to talk about butter fat, free from water, as a measure of butter as it would be to talk about milk solids free from water, as a measure of a quantity of milk. A certain amount of water is absolutely essential to the composition of butter. The amount will vary with the temperature at which cream is churned, the method of handling and especially with the character of the milk.

DAIRY farming is an aid to what is known as intensive farming—a system that keeps up fertility and increases it. American farming in general is in the opposite direction. Nature made much of our Western lands rich and fertile, but continual cropping and no manuring makes them poor. Dairying, stock raising, and the growth of new cities are aids to the rehabilitation of our farm lands.

THERE would be one advantage in keeping five poor and thin cows giving about 230 pounds butter annually, over one like "Pauline Paul," giving 1,152 pounds; there would be a much larger pile of manure, but it would be worth far less load for load. But how about the cost and the care of the five poor cows instead of one good one? The devotee of poor cows should do a little figuring.

PAULINE PAUL, the champion butter cow of the world, will be ten years old in February next. She is of the Holstein-Friesian breed, and was raised in Iowa, by Charles Crasper. Her record will be hard to beat.

GIVE the cow plenty of water and succulent food, if quantity is what you are after.

A GOOD feeding of bran and oats will increase the flow of milk.

CONCERNING BUTTER FLAVOR.

In butter, as it is made in creameries or elsewhere, there are flavors many and various. They differ as widely in origin as in kind. Many come to the cow through her breed, her feed, her drink and her surroundings; other flavors are born and bred in the dairy. All of these save one, the breed flavor, are foreign and more or less corrupt flavors. They do not belong to butter rightly made.

Butter rightly made also has different flavors, according to the breed of the cow, the stage of ripeness at which the cream was churned, and, probably, the stage of lactation. These are flavors of composition. Take creams from a number of typical cows of the several breeds and from scrubs, all in milk the same length of time, and ripen the cream as nearly as possible alike, churn each in the best way for it, and the several butters obtained will have flavors as markedly distinct as their colors—not that there is any known connection between color and flavor. There will be a Jersey flavor, a Guernsey flavor, (scarcely distinguishable from the Jersey,) an Ayrshire, a Holstein and a scrub flavor. The flavors of the Jersey and Guernsey are peculiarly rich and nutty-like, and persons who once become accustomed to them are never content with any other butter. The other three differ less from one another than all do from the Jersey and Guernsey.

These are facts within the experience or observation of all who have made or used first-class butter from the kinds of cows described. Creamery men and papers run by creamery men find it to their interest to ignore or deny these facts, because to state them or to admit their truth when stated by others is both to announce the fact and at the same time account for it that the best creamery butter is not as finely flavored as the best dairy butter. The best private dairies can and do control the conditions that govern and make the richest flavors. The best of creameries do not and cannot control these conditions.

In addition to these facts there are a number of other things that have quite a direct influence on the flavor of the butter, as well as its keeping qualities, among which are such things as filthy, badly-ventilated cow stables and the habit some milkers have of leaning their heads against the side of the cows when milking. Cows that are not kept curried and brushed always have a loose scurf on the skin that rubs off and falls in the milk bucket when the milker leans against them. There are instances where the udders become dirty from unclean stalls and carelessness allows the dirt to go in the milk—it reaches

it in a very fine state, so that it will readily pass through the milk strainers—but a tumblerful of it allowed to settle will show it in unmistakable quantity in the bottom of the glass. This trouble is often complained of as “the milk having a cowy taste.” Good butter flavor commences with the food the cows receive, and depends then upon cleanliness in milking, clean stables, free from manure odors and other similar precautions. The milk must not stand a moment after the cow is milked, but should be strained at once. The vessels must always be sweet and scrupulously clean, the milk-house must be kept at an even temperature and frequently aired to prevent any danger of a musty atmosphere—the cream must be kept where there is no danger of its being contaminated by odors of any kind. All these things are no doubt what the *Bulletin* refers to as those that are born and bred in the dairy. In our large cities there are thousands who do not know what the taste of fine dairy butter is; they have never tasted such and have become accustomed to consider butter good that a person who has always been used to good dairy butter—butter made under proper circumstances in all respects—would not use even for cooking purposes. If all the city consumers were good judges of butter, many of the butter-makers would have to take considerable more pains than they now do, or their butter would never find any customers.—*Jersey Bulletin*.

THE RIGHT WAY.

The *Maine Farmer* states that a new feature was recently introduced into the Pembroke Farmers' Institute, in bringing before the meeting various types of cows, which formed the basis of an instructive discussion as to the proper form and make of a dairy cow. That is a step in the right direction. We hope to see the day when all of our farm institutes will be conducted in this object lesson manner. Our fairs should be conducted in the same manner, also. An ample amphitheatre should be provided with raised seats all around a central platform. All of the first premium animals should be brought on the platform and the judge be required to state just why the animal was the best. As the matter now stands, there is no instruction whatever to be gained from award of premiums. Another improvement would be to require every sire to be accompanied by from three to four of his get. The sole object of a sire is his breeding power and possibilities. Pedigree will not determine this;

neither will individual appearance. Nothing will determine it but the actual proof as seen in his posterity. No judge on earth can tell how a sire will breed, yet, as we said before, the sole object of his existence is his breeding ability. Let us clean out a lot of foolish fictions which cling to our methods of conducting things, and make of our institutes and fairs agencies for absolute instruction to people who attend them. All that is needed is a little resolution and executive ability.

COUGHING COWS.

We clip the following article from *Hoard's Dairyman*, which we consider well worth reading.

DR. HORNE:—I have been a regular reader of *Hoard's Dairyman* the past two or three years and have noticed your prescription to Mr. Madison, Topeka, Kansas, for verminous bronchitis in his calves, dated October 23, 1891, and as we have something wrong with our Guernsey cows and heifers, wish some light.

June 24; I attended J. C. Kent's sale, near Philadelphia, Pa., of imported Guernseys and brought home ten head and turned them into luxuriant clover pasture with our home cows. At one end of pasture lot is quite a low hollow place, of one-sixth of an acre, holding water in ordinary wet weather; otherwise the pasture lot is not called low ground. The cattle were watered at a running stream between barn and pasture and mud holes along the road and had access to this hollow in pasture where the water was standing. I insisted with the boys they should water them at the barn pump, but they said cows liked running water best, and I did not notice anything wrong for several weeks, when I saw that one young cow and heifer in calf of the new purchase looked very thin and I ordered more grain to be fed those two, but they went down in flesh and seemed so weak that I felt much discouraged; and they got sore feet, or, as we call it, cow itch. About the middle of October I noticed these two that were rather weak in their constitution, coughed a little, and have been coughing ever since, and the heifer dropped a calf October 18; the calf looks fine and plays more than any other calf I ever owned, but the mother looks sick and delicate and not much appetite; don't eat as she should—not much hay; likes corn cob meal. Calf has not coughed yet. All the cows coughed late this fall, but several of most robust don't seem to cough any more. I called a veterinary surgeon from our city to examine them, but he thinks there is not much the mat-

ter. I told him I was afraid, as it was something new to us. I showed him what you said to Madison. I told him I would fumigate the cattle with lime; he told me to use a little carbolic acid in hot bran. I have used it a few times. What do you think is the matter and what shall I do?

Another heifer dropped a calf in October and it coughs a little and the mother coughs more than I like. I noticed a few of the new purchase have sore blotches—three or four places about the rump and tail; hair came off these places, looking quite red when the scab came off. I used a solution of carbolic acid, which dried them up and they look all right now.

Our cows never had better pasture than this season. It was but a very short time after we tied our cows in for the winter before they all coughed more or less. Those heifers that were in separate pastures and tied in different part of barn seem all right.

I have written very much, but wish to give everything I can, even if it is scattered in statement, which you will excuse, as I am very anxious to hear from you and hope you will be able to give a remedy, as we have been startled by reading in a paper published in Philadelphia, saying, look out for coughing cows, as they are consumptive and will convey to the human family, &c.

Please let me hear from you at your earliest convenience, and oblige,

JOHN W. GIBBS,

CANTON, OHIO.

ANSWER BY DR. HORNE.

“I don't believe you have vermicular bronchitis. I do believe your cattle are suffering with the pestiferous influenza, which seems to be afflicting all warm-blooded animals. There are many causes—anything which lessens the vital forces and thus weakens the animal, is the chief cause. This la grippe is now much worse than ever before, and is not content with mankind, by any means.

I think the filthy water and low ground is the cause, in your case. Any civilized man who will allow his animals, especially cows, to drink impure water, or anything else impure, ought not to expect to keep his stock in health. Cows must have pure water and air *first*—then pure food, and general cleanliness. This is imperative. No law, nor circumstance will admit of violation of God's decree. The laws of physiology demand a general cleanliness, and pure food, air and water. Sunlight is a great factor in the general good health of all warm-blooded animals.

Give *fluid* extract of lobelia, in two dram doses, for all ordinary-sized, full-grown cows; ten drops for calves a week to 4 weeks old. Internally

give forty drops of *fluid* extract of nux vomica and half an ounce of *fluid* extract of gentian in 3 ounces of best old whiskey. This also must be apportioned according to size and age."

It is an enigma to us why so many dairy farmers, who seem to be really solicitous to improve their stock, put so much faith in mere heredity and buy young bulls, even when they have a chance often, to buy an aged one that has proved to be a good sire, and has good progeny to show for the excellences there are in him. It is true that we are justified in putting a good deal of faith in the doctrine that "like produces like," but the faith should not obscure the light of knowledge. It is better to know your horse can trot in 2.20, than it is to know his sire trotted in 2.19.

THE EFFECT OF FEED.

Professor Robertson made a statement at the New York Dairy Convention as an illustration of the value of good feeding, that he knew of a man in the Province of Quebec, who had four cows. In 1888 they gave 78 pounds of butter each. He commenced feeding a little corn and bran and in 1889 they gave 131 pounds of butter each. He kept increasing the ration and good care and in 1890 it was 204, and this year it will be 250 pounds. This shows what men can do with the common cow.

It often happens that a good breeder has used a good bull in his herd, till he wishes to use another male of the same breed, instead of practicing inbreeding, and will sell his old bull cheap for that reason. Why do not our ambitious dairy farmers go for such bulls, in preference to an untried young one.

Apiary.

BEE JOTTINGS.

BY GENIO, MARYLAND.

The bee-keeping industry is not generally recognized, from the fact, that in many places it is carried on as an incident of general agriculture. In some portions of New York, Ohio, California and some other States, it is more prominent and quite profitable. The aggregate annual value of the honey and wax product in the United States is quite large. The census report places it at over 26,000,-

000 pounds, worth at least \$6,000,000. Surprising, that so small an insect as the little busy bee, is capable of yielding such a valuable product. Of the different varieties of bees, the Italian is superior and is sought after by all practical and wide awake apiarists. Mr. S. P. Parsons in 1860 imported the first colony of Italian bees, direct from Italy, into the United States. The tongue of the Italian being longer, they gather from flowers which are useless to the black bee; they are also more gentle and easier handled. The Italian queen being more prolific, increase is made much faster with safety, thus preserving against the depredations of the bee-moth. In a colony of pure Italians every worker bee will show three bright yellow rings at the base of the abdomen. The queen has the entire base of her abdomen, and sometimes nearly the whole of it, orange yellow. Her period of development from the egg to maturity requires about sixteen days. She is then called a virgin queen. For four or five days she moves around in much the same manner as a worker bee, helping herself to honey. About the fifth or sixth day, if the weather is pleasant, she may be seen crawling about the entrance of the hive and will probably try her wings. After a while she will mount up and circle around, increasing the distance each time to mark her home, and if drones are flying, she soars away into the air. If no accident befalls her, she returns from her mating flight. In a few days she will commence to lay in her best estate, from two to three thousand eggs a day. She lives on an average, from three to five years. The drone is the male bee, short lived, has no sting and can be handled with impunity. From the egg to maturity requires twenty-four days. The worker comes forth from the egg in twenty-one days and as a sign of purity, wears three golden bands. The average age of the worker is but a few weeks in summer, and from six to nine months during the cooler part of the year.

tion is given the flock the amount realized from the increased number of eggs sold will more than repay you for the trouble.

The complaint is often made that the hens will only lay in warm weather when eggs are cheap, and the question asked how to make them more prolific at other times. If a hen is given a comfortable place to roost, a variety of nourishing food, enough exercise to keep her system in a healthy condition and can get plenty of pure drinking water at all times, she will produce eggs except for such periods of rest as she will need for recuperating from the loss of vitality caused by continued laying. If the hens are unproductive for any length of time, winter or summer, it is because all of these conditions have not been fulfilled; study to meet these intelligently and the way to success in the poultry business will lie open before you.

At this season it would be well to see that the hen-house is made comfortable by stopping up all the cracks, including those about the door and windows, and providing sufficient ventilation to keep the inside air pure, but not enough to render the place as cold as the temperature outside. If windows are used shutters ought to be provided to be closed upon very cold nights, as otherwise the interior of the house would become excessively warm through the day while the temperature would fall rapidly after the sun had lost its power, thus causing the extremes of heat and cold within a few hours. If the ground is not frozen too hard, trenches should be dug around the outside of the house for draining off the water during rapid thawing, and earth banked about the sills that the outside air may not leak under them during windy weather. The floor of the house should be cleaned and covered with a litter of leaves or straw for the hens to scratch in when they cannot run outside. If the place is too small for shutting the flock in, during stormy weather, and there is no other shelter for them near, brush or fodder sheds might be built, the open side toward the south, and leaves thrown under them. The fowls could exercise themselves under such places when the ground is covered with snow, scratching in the litter there, thus preventing many of them from having their feet frost-bitten or contracting colds.

Hens will require a moderate variety in their diet to produce eggs when their usual supply of green food and insects cannot be obtained through their own efforts. Wheat is the best grain for them, if but one kind is used, and the cheapest in the end, rye being nearly worthless to create

The Poultry Yard.

EGG PRODUCTION.

BY H. R. STRIGER, MARYLAND.

If you are in earnest and want to make poultry keeping profitable it is to be hoped that your fowls are well cared for at all times, but if at this season especially, a little extra atten-

variety,—corn, oats and buckwheat may be used; but to obtain eggs in winter the poultry will require a greater variety than grain alone for their rations. A good fare is scalded middlings in the morning, boiled vegetables of some kind at noon, and grain with the chill taken off at night. A few handfuls of grain scattered in the litter about the place at meal time will keep the flock busy and warm from exercise. A moderate amount of cooked meat will increase their laying, but meat should not be fed to them raw, as it will create an appetite, which will be partially satisfied by plucking feathers for the clot of blood to be obtained upon the quill points, and seriously injuring any combs that may bleed upon freezing days, from frost-bite. Cracked bone is only a fair substitute for cooked meat. The hens should be provided with all the water they want when the places from which they usually supply themselves are frozen over. If once a week a pot of potatoes and butchers' scraps are boiled for the poultry, the meat afterwards being chopped fine and the potatoes mashed in the pot liquor, making a rich soup, all of these being mixed with enough meal to make a stiff dough and seasoned with pepper and salt, then fed warm, the fowls will enjoy it keenly and such treatment will help wonderfully, to make them lay.

POULTRY NOTES.

Early Chicks Without Brooders.—A Western Man's Way.

Every one cannot have incubators, brooder houses, etc., but they can during the summer and fall provide a good warm house, say 12x24 feet, with a southern exposure, put some windows in the south side, fill up inside with clay at least six inches above the ground and pack close, bank up the outside eight or ten inches, haul dust from the road and fill on top of the well-packed clay floor at least three inches; on top of this throw a big wagon load of chaff or clover hulls. Get this all ready in the summer and early fall; this will make you a brooder house for early hatched chicks.

Provide a warm house for your fowls in winter. Keep either pure or a good strong cross of either Plymouth Rock or one of the Asiatic breeds, so as to have good winter layers. Hens that lay in the early winter will set by Christmas. Set all the early clutches of eggs you can, and when the chicks are hatched turn them and the hen in the house above described and they will do well, providing the following rules are followed: For the first week

or ten days keep the hen confined in a coop or box so the chicks can run about and hunt in the chaff when they wish, the hen will constantly cover them while kept in the coop if she is well fed. Feed the chicks just out of her reach at least five times per day (if the trouble is taken to feed by lamp at nine or ten o'clock at night they will do much better) on corn cake, biscuit, oatmeal and table scraps they will grow very fast. After ten days old the hen can be allowed to run about the house with them during the middle part of the day. Water always with lukewarm water in cold weather and keep the coops clean and dry. Boiled vegetables chopped fine and mixed with meal will make the best of feed. After two weeks old never feed any soft or sloppy food, fowls are constructed for eating dry food and seeds, not slops. As soon as they are old enough to hunt, throw wheat and broken corn among the chaff, it helps them grow to hunt for it. With good care eight or ten broods can be kept in the house together providing the hens are quiet and accustomed to each other. In this way early chicks can be grown with very little loss and with less expense than a brooder house. Cross hens must be confined or they will kill or hurt chicks not of their brood.

T. F. McG.

The pullet that will not lay, and will not pay her way, is the one with a big head, thick neck and large bones. Her whole appearance is masculine. The one to select for laying and for profit is the one that has a feminine appearance from beak to toe nails. Her head is small, neck slender, body narrow, but deep in front, rather long shanks, not too heavy. She is active and sprightly, indeed, rather coquettish in her ways. Study the appearance of your best laying hen and you will recognize her daughters when you see them.

BONES FOR THE FOWLS.

The refuse bones from the family table should all be saved and broken into small bits for the fowls. They eat them greedily, and where they are not supplied with bones it is a good policy to buy them ground and ready for use. They will not only assist the fowls by supplying the system with a needed desideratum, but act as a preventive to a certain extent against bowel diseases. It is not expensive, as it is not necessary to feed much at a time; a little every day, or twice a week at least, will more than repay the additional expense that may attend the use of it.

MONEY IN POULTRY.

A Suitable House the First Essential to Pecuniary Success.

A suitable house is important. It may be of any size desired, but it is best not to keep more than 50 fowls in the same apartment. Make the walls and roof close, so that the wind may not blow upon the fowls, and put a ventilator in the roof. Make windows, the larger the better, in the south side of the roof to provide light and warmth. Close to or upon the ground, next to the south wall, provide rows of nest boxes with hinged covers. These boxes are 18 or 20 inches long, and an entrance from the north side at one end of each nest is made, by which the hen enters. Each nest may have a separate cover, or these may be long enough to cover several nests. The roosts are three or four feet above the floor at the north side. A board six or eight inches wide, supported by posts, runs the entire length of the house, about midway between the north and south sides. A cleated board leads from the ground up to this, and the roosting poles extend from the first described board to the north wall. By this construction the fowls do not have to fly from the ground to the roosts, but walk up to and along the board to the poles. Surround the house with a yard in which the fowls may run in fine weather. If the house is well constructed, and proper food is provided, eggs will be laid all winter, and they will return a large interest on the cost of their house, food and care.—Orange Judd Farmer.

A CHEAP poultry house is as good as an expensive one if it is only warm and clean and keeps out drafts, and hens will lay just as well in it.

BECAUSE you are running an incubator do not expect all of the eggs to hatch any more than under the hens, or you will be disappointed.

To a considerable extent each individual must determine which to him is the best breed.

THE earlier the fowls are fed in the morning, the more they will feel like scratching and taking exercise.

Two hundred and fifty fowls are enough for the average farm.

A BREED may approach perfection in one locality and fail in another.

MARKETING POULTRY.

Old fowls may get very fat while running at large, but chickens, not fully mature, must be closely confined and bountifully fed with meal, in order to wax fat. It is well to wet the meal with boiling water and feed it warm. Two parts corn to one part oats, ground together and mixed with milk to fatten chickens. This feed cannot be excelled. A suitable coop should be provided; the bottom made of bars, and raised high enough to permit scattering dry earth under or clearing away the excrements. Every precaution should be taken to avoid a filthy condition. The top and two of the sides may also be made of bars, thus giving free circulation of air and affording means of making the room smaller by putting in a cross partition between the bars, making the size right to accommodate a small number of chickens, says a writer in *The Poultry Yard*.

POULTRY AT THE FAIRS.

Nowhere is the rapidly increasing interest in poultry more clearly indicated than at the fairs. At the New York State fair the exhibits in poultry numbered 2,380, or more than twice as many as were entered last year. At the New York and New England fair, held at Albany, the birds exhibited numbered over 3,000. At these and lesser exhibitions not only are fine specimens of the better known breeds shown, but the fanciers are out in full force with the new candidates for favor. These displays give the farmers an admirable chance of comparing the various breeds and noting their respective merits. The American class of fowls, as a rule, appeals to them. Barred Plymouth Rocks are favorites, while the white Plymouth Rocks and white Wyandottes attract admiring attention, as do the gold and silver Wyandottes. Games, bantams and Indian game fowls are well represented and find many admirers.

UNHEALTHY parents cannot produce strong, vigorous chicks because they inherit a tendency to disease.

At all times keep in mind the fact that it costs no more to keep good fowls than poor.

DUCKS are more profitable than chickens and there is always a demand for their flesh and eggs.

POULTRY DON'T'S.

Don't kill a chicken until it is in good condition.

Don't waste food, but seek to give what is most profitable.

Don't keep forty hens where only twenty can live.

Don't allow the hens to roost in the carriage house, woodshed or on the big beams over the barn floor.

Don't try over one breed at a time.

Don't expect eggs in return for neglect.

Don't cram to-day and starve to-morrow.

Don't expect poultry to thrive in damp quarters.—*Maine Farmer*.

BRONZE turkeys still lead the procession in Turkeydom and many farmers, the past season, have demonstrated that they can raise them, and the farm is the place to do so. Turkeys require great care, as every one who has kept them must admit, but they can be reared just as well as any fowl we have if this one point is observed. Carelessness is at the bottom of most of our non-success.

As the weather gets cold and stormy more and better care with the poultry will be necessary.

Do not keep more than one rooster for every ten hens.

A POUND of poultry can be grown at a less cost than a pound of beef.

GENERALLY, after a hen is three years old she becomes unprofitable.

KEEPING fowls in a darkened room will induce them to fatten faster.

THE best egg producers are not by any means the best table fowls.

KEEP only such fowls as will bring the desired effect in the shortest time.

THE influence of the climate has much to do with the selection of the breed.

Home Department

TO PREVENT DIPHTHERIA.

Dr. Chancellor, Secretary of the State Board of Health, says:

"The poison of measles, scarlet fever, diphtheria, typhoid fever, &c., is probably never wholly extinct in any community where these diseases have once prevailed, but their epidemic prevalence occurs only in certain cycles when the surroundings are favorable for their spread. Such conditions we must diligently avoid, and of all the means of doing so, cleanliness has been found to be the most direct and trustworthy. People who live in the country or small towns imagine that they are exempt from the unhealthy conditions. This is a great mistake. The refuse products of a single family neglected for a few weeks or months will almost certainly breed mischief, and if neglected for a long period will render the premises as foul as the worst spot in a crowded city. A tainted atmosphere may be so poisoned that a very little introduced into a bed-room, so little as to be quite imperceptible to the nose, may give typhoid fever, diphtheria or scarlet fever to a person sleeping there. We do not content ourselves with excluding the great majority of sparks from a powder magazine—we do our best that no one shall enter. So our endeavor must be that no tainted air shall exist in or around our dwellings. Nothing perfectly clean can contain a germ of disease. Although perfect cleanliness may be an unattainable ideal, still it is an ideal after which we should strive. Pure air, clean water, rapid removal of all refuse or foul matters are the great desiderata for a healthy home."

THE DIGNITY AND IMPORTANCE OF HOME MAKING.

BY HANNAH STEIGER, MARYLAND.

FOR THE AMERICAN FARMER.

The best incentive a man can have to make a success of life is unquestionably that of forming, and maintaining, a home; and that to be a true home requires a woman at the head of it. *The Home Department* therefore, where housewives may discuss domestic matters freely is a fit

ting supplement to other departments designed to aid men in discovering the easiest and best methods by which to accomplish their purposes, since we, no less than they, need all the aid and encouragement, as well as wisdom, that comes of a multitude of counsel.

The home department in farming operations is of more consequence than the same department in other fields of labor. It is a little world within itself, when we find individuality of speech and manners that do not exist where there is more intercourse with other people; this increases the responsibility of the home makers inasmuch as the home life so stamps itself upon each one as to have a serious effect upon their future conditions; also the wives and daughters of the farmer usually contribute materially to the family treasury, directly and indirectly, and they share more fully in each others pleasures and interests than households elsewhere usually do. It is also from the home and home life that a family takes its character and standing in the neighborhood and it is the expression of a man's success in life or the reverse.

It would elevate our office if we housewives would keep these facts in view, and its dignity would be more apt to so impress itself upon the powers that prevail at present, as to secure to us the same careful consideration in the committee on ways and means that is given to other departments.

If, in our department, we would make our importance manifest it need not be by any unfeminine assumption of *rights* that were never meant to be ours, but by so completely filling our rightful sphere that there can be no question of our *rights* being equal.

It is none the less humiliating because they mean well when our coadjutors sit in counsel at their club meetings as to what indulgence we shall be allowed in order to *make us happy*. When wives and daughters receive the same careful provision in their department that is given in others, they will indeed be unreasonable if they fail to accept their lot cheerfully. It is only when there is unjust discrimination that wise women complain. We want justice; not generosity. Then, while men shoulder the responsibility of providing the wherewithal, be it ours to use them wisely and frugally in order that home may be the happy resting spot for all; and it behooves us also to aid, by every means in our power, any object agreed upon in family conclave, thus becoming help meets indeed, instead of being objects of commiseration.

Ambition is a forcible element with us, as elsewhere, and it is no slight advantage to us individually that the freedom from conventionalities, which is our birth-right, emphasizes whatever advancement we may make, inasmuch as it is purely the result of innate qualities, and we are pretty certain of being rated in any community at our actual value.

DRIFTING.

BY W. D. P.

Upon a trackful sea, beneath a sky
Full fair, full cloudy in alternate change
My little craft drifts on, and in it I,
Now moody and now careless, watch the range
Of each white-crested wave athwart its path,
Nor notice calm, nor heed the storm's wild wrath.

Yon star by virtue of its right holds no
Constraining sway upon the craft or guide
Who should its tiller hold. For weal or woe
It drifts: to sink beneath some wave or ride
Its crest. No thought of needle or of star
Yet on this trackful sea out far, so far!

Its prow nowhither points, though yonder where
The ocean's rim is hooped to golden skies,
And toward which fair wind and current bear
A stormless and a beauteous haven lies.
But yet forever on 'neath cloud or rift
My little craft and I do strangely drift.

HOW TO PLANT PEACH SEEDS.

Mrs. L. F. contributes the following useful information from her own experience:

Drop them quite thickly in a furrow, in the fall of the year; cover with about one inch of soil; in spring nearly all will come up and grow nicely if cultivated. Next fall dig them up and bury them until spring again, then set them out.

Again, if you have the ground in good order, plant the seed in the fall just where it is to stand. In spring 'twill come up, grow rapidly and bloom the third year.

I have been told that the shells can be cracked and the kernels planted in Spring with satisfactory results.

ON COOKING she says: "Like many country folks, when we have meat, we are obliged to have it in large quantities or not at all, I speak more especially of beef. Much of it must be salt cured to keep in our changeable climate. Now there isn't much poetry about a dinner of corn-beef and cabbage, but for all that, it makes a good, substantial meal for hard working people; nor is the dinner next day bad of cold corn-beef with hot or cold slaw and mashed potatoes. But that gets old and brings to mind the nursery rhyme:

"Corn-beef hot, and corn-beef cold;
Corn-beef in the pot, nine days old,"

so we long for a change.

I get out my chopping-board and hatchet, chop a quantity of the cold

boiled beef very fine, put three cups of it in the stew-pan, with a little water, piece of butter, tablespoon of flour, season with pepper, cook fifteen or twenty minutes, toast a slice or two of bread, butter and cut it in triangles, (called "Croutons" by the French,) put toast on a dish and pour the mince over it.

THIS IS OUR CHANGE:

Then again take two or three slices of bread, put in a pan, pour over a cup of milk, let it come to a boil, mash the bread fine with a spoon, add a piece of butter, season with pepper and sage and three cups of the mince, mix well through the bread; when cool enough to handle, make into small cakes, roll in bread crumbs, fry brown on both sides, not in boiling lard, but with a little butter, and when my hungry school-boy at supper says—"Ma, you have got a good do on these Patties, this the way I like meat," his appreciation pays me for the trouble I have taken."

REMEMBER THE NEEDY.

The cold and inclement season is upon us, and we cannot be too thoughtful of the comfort of others. There are probably many in our midst who will suffer from the icy breath of winter, and whom from various causes have a hard time in keeping the gaunt wolf from the door. Little bodies will cry for warmth and there will be no warmth for them, and little mouths will appeal for bread and there will be no bread for them. To these of this class, the deserving poor whom we have always with us, be merciful and let not your charity be grudgingly bestowed. Remember, that "inasmuch as ye did it unto one of the least of these, my brethren, ye did it unto me."

WINTER EVENINGS.

The good old long winter nights are now at hand, and how the thought brings up from Memory's storehouse many pleasant-remembrances, associations and events which can never be effaced or forgotten. Many of the actors in these faded dramas are sleeping under the mound, where we must also one day sleep. Boys, prize the winter evenings; cull from them pleasant scenes and useful lessons that will live in your future. Parents, determine to make home so pleasant and attractive that the boys will not feel inclined to wander off for enjoyment. Most of vice is garnered on winter evenings on the street and in public lounging places; most of virtue is gained around the dear old fireside.

THE HOUSEKEEPER.

PARSNIP FRITTERS.—Three large parsnips, boiled till soft, which will require about two hours. Scrape and mash fine, picking out all strings and lumps. Add two beaten eggs, two tablespoonfuls of milk and two of sifted flour, an even teaspoonful of salt, and quarter of a teaspoonful of pepper. Mix thoroughly; make into small cakes, flour them, and fry brown in dripping, or butter if preferred.

WAFERS.—One pint of flour (prepared is best), one cup of milk, one tablespoonful of butter and a teaspoonful of salt. Rub butter and salt in the flour, wet with the milk and roll out as thin as possible; cut into rounds with a cake cutter and roll out again, this time surpassing the former "possible." They should be actually translucent. Transfer with care to a floured baking pan and set in a quick oven until delicately browned.

BROWNED HASHED POTATOES.—Chop two cold boiled potatoes fine, and season; put one tablespoonful of butter into a frying pan; when hot put in the potatoes, smooth them carefully over the bottom of the pan, and cook slowly without stirring until the potatoes are brown and stick together. Lift with a slice. If more are wanted, they must be browned in separate lots.

PARTRIDGES WITH SAUCE TARTARE.—Split the birds in half, dip them first in hot butter melted, then into fine bread crumbs, rather highly seasoned with salt, pepper and cayenne. Broil them slowly over a clear fire, and serve with either tartare or piquante sauce. "Tartare" is merely a good salad dressing, with parsley, onion juice and chopped gherkins added, or minced cucumbers.

A "SALMI" OF WILD DUCK.—Half roast the bird, then take it from the fire, slice off all the flesh neatly, and lay it in a chafing dish with a spirit lamp. Then place the carcass in a Hanis or other press till every drop of juice is extracted; season this juice with cayenne and lemon juice; let it reduce a little, then pour it over the meal and let it all finish, cooking over the spirit lamp.

FRENCH TOAST.—Beat an egg until it is quite light, then mix it with about quarter pint of new milk, and season to taste with salt or sugar, as you choose. Have ready some bread cut as for toasting, with the crusts removed, and let these slices soak in the egg and milk until they have absorbed it, or as much as they can without going to pieces: lift them out carefully, and fry in hot butter, turning them as the sides brown.

They should be golden brown and crisp outside. Drain them on a piece of kitchen paper; sprinkle with either salt or sugar.

SCRAP PUDDING.—Put the scraps of bread, crust and crumb into a bowl with sufficient milk to cover them. Cover with a sauce pan or a plate, and put into the oven to soak for about half an hour. Take out and mash the bread with a fork till it is a pulp; then add a handful of raisins and as many currants; teaspoonful brown sugar, half a cupful of milk, some candied lemon peel and one egg. Stir up well, grease a pudding dish, and pour the pudding in. Grate over it a little nutmeg, put into a moderate oven, and let bake for an hour and a half.

QUENELLES OF RABBIT.—Pound 10 oz. of the raw meat of the rabbit, freed from skin and sinew, till perfectly smooth; then pound it with 6 oz. of ponada which should previously have been pounded separately till thoroughly amalgamated, adding at the same time 1 oz. of butter, the yolk of two and a half eggs, white pepper and a little salt. When quite smooth rub it all through a wire sieve, mix into it two tablespoonfuls of cream and shape it with a desert spoon, according to the size you wish your quenelles to be. They should then be poached in a buttered sauce pan, with either stock or water, for 10 or 15 minutes. Dish them *en couronne* round a heap of French beans, etc., or a border of mashed potato and with any white sauce poured over and round the quenelles. The same mixture is also nice if poached or steamed in tiny buttered cups and moulds, turned out and served with a rich tomato sauce.

SNOW ICE-CREAM.

LILIAN MAYNE.

We try to celebrate every fall of snow by making ice-cream, as it can be frozen so much more easily with snow than with ice. Take one quart of milk, four eggs, five heaping tablespoonfuls of sugar. Mix the beaten eggs with one-third of the milk, put the other two-thirds with the sugar into a tin pail, and set the tin pail in a kettle of boiling water (it will in this way be impossible to burn it) until the sugar is dissolved, then add the eggs and milk, stirring constantly until the mixture looks creamy on the spoon; if cooked to much it will curdle. Remove from the fire and cool thoroughly before flavoring and freezing. If the mixture should be found lumpy from not thoroughly beating the eggs, strain it before freezing.

Have ready a butter firkin or any keg that is deep enough. Put a layer

of snow and coarse salt in the bottom; then put in the freezer of cream, tightly covered, and pack snow and salt in layers to the height of the cream in the freezer. Be careful not to pack it too high as the salt will get into the freezer, which must be opened occasionally to allow the cream to be stirred.

Turn the freezer until the cream begins to stiffen on the sides; then scrape the cream from the sides, and beat it with the unfrozen cream (the more it is beaten, the more evenly it will be frozen). I am taking it for granted that a tin pail or an old-fashioned freezer is to be used. If a modern freezer is used, the beating is of course done by the act of turning the freezer.

If at any time it seems necessary to get rid of the surplus water in the keg, make a gimlet hole near the bottom and draw off the water; then fill up the keg with new layers of snow and salt, packing it down with an old broom-stick or anything that is handy. If the cream is to be kept for any length of time, the freezer and keg should be covered with pieces of old carpet.

WASHING WITHOUT RUBBING.

A lady in New Jersey writes: "Your columns devoted to 'The Household' has interested me greatly, and I enclose to you directions for washing, which save all rubbing. These directions were originally sent me from Germany, and have proved a boon to rich and poor alike, wherever recommended. Into a large boiler full of boiling water shave a pound and one-half of good brown soap, (or its equivalent of soft soap will do) and pour half a tea cup of kerosene oil. Soak the clothes over night, next morning put them into boiler, and boil exactly twenty minutes, stirring frequently. Take out, drop into tub of clean, hot water, and wring into second tub, and again into third. Starch and blue. If soda or any washing fluid is added, the whole process will prove unsuccessful. I hope that many will try this simple plan of washing. Those who do will find Monday divested of its horrors as washing day. The clothes must be wrung through the three clean waters, and the directions closely followed, to insure perfect success."

There are several kinds of wash-boilers sold that are made upon this principle. The boiling takes the place of rubbing. But it will be hard to convince housekeepers that rubbing can be omitted.

A large amount of useful matter for this department has been crowded out this issue but will appear in our next.

Miscellaneous.

WILL YOU LISTEN?

We plow, we plant, we sow, we pray,
We feed and water day by day;
We watch our crops, we take in all—
Will you listen? I heard it fall;
Yes, 'twas the price of grain. I see
Has tumbled down, well, let it be,
We care not, heed not, no, not we—
Will you listen? We'll feed you free.
You have no funds, but bread you need,
We are your friend and such indeed.
We know the cost, we gave the toil,
But God we thank, He gave the soil;
He gives all, if we only look
We'll find it stated in His Book—
That Book of books, recorded there,
Brings Kings their profits and our share.
The farmer is—will you listen now?
In God's lands, the *why*, the *when*, and *how*.

A QUESTION.

Said Lady Bab to Lady Sue;
"I wish I were as blessed as you—
Your husband is polite and kind,
Of gentle manners—generous mind,
Obliging gay—in friendship warm,
With every quality to charm."
"Pray Lady Bab," cried Lady Sue,
"How came my husband—entre nous,
So intimately known to you?"

EDITORIAL EMISSIONS.

If you wish to whiten yourself,
never attempt to blacken others.

If you live for yourself alone, time
will tell you how mean you are.

Ostentation is for sale in any mar-
ket, but happiness is entirely home-
made.

If we attempt to subsist upon the
faults and frailties of others, we'll
find an empty larder when hunger
pinches hardest.

A mind that minds its own busi-
ness, is the only mind worth minding.

Trifles may give you reputation,
but they never shape character.

Hard struggles and stern conflicts
show us the stuff we are made of.

The first evidence of "dry rot" in
a man is a leaning to lurking and
lounging. If he can give no especial
reason for being here or there or no-
where in particular, his carcass is
nearly ready for interment.

A man is extremely fortunate if he
profits by the advice he freely gives
to others.

Our actions should yell, but our
words should only whisper.

"So you want to know where flies
come from, do you, Lucullus? Well,
the cyclone makes the house fly, the
blacksmith makes the fire fly, the
carpenter makes the saw fly, the
driver makes the horse fly, the grocer
makes the sand fly, and the boarder
makes the butter fly."

WHAT WOMAN CAN DO.

She can come to a conclusion, and
generally a good one, without the
slightest trouble of reasoning on it;
and no sane man can do that.

Six of them can talk at once and
get along first rate, and no two men
can do that.

She can safely stick fifty pins in
her dress while he is getting one
under his thumb nail.

She is cool as a cucumber in half a
dozen tight dresses and skirts, while
a man will sweat and fume and
growl in one loose shirt.

She can talk as sweet as peaches
and cream to the woman she hates,
while two men would be punching
each other's heads before they had
exchanged ten words.

She can throw a stone with a curve
that would be a fortune to a base ball
pitcher.

She can say "no" in such a low
voice that it means "yes."

She can sharpen a lead pencil, if
you give her plenty of time and
plenty of pencils.

She can dance all night in a pair
of shoes two sizes too small for her,
and enjoy every minute of the time.

She can appreciate a kiss from her
husband 75 years after the marriage
ceremony is performed.

She can walk half the night with a
colicky baby in her arms without
once expressing the desire of murder-
ing the infant.

She can drive a big burly tramp
out of the back yard with a broom-
stick, and can run from the cellar to
the garret to get away from a mouse.

She can do more in a minute in
many ways than a man can do in an
hour, and do it better.

A CALCULATING genius affirms that
every time a cow moves her tail to
switch a fly she exerts a force of
three pounds, and that in the course
of a summer a single cow wastes
5,000,000 pounds of energy.

BOOK NOTICES.

We are in receipt of *Frank Leslie's
Popular Monthly*. It is the Holiday
or January number, and as usual con-
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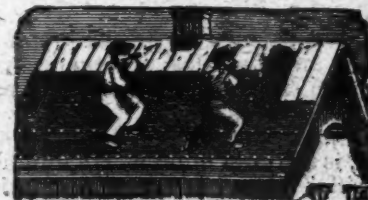


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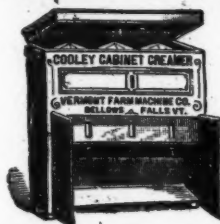
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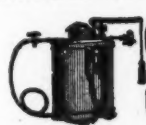
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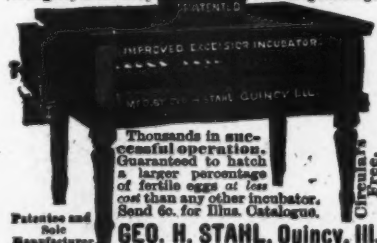
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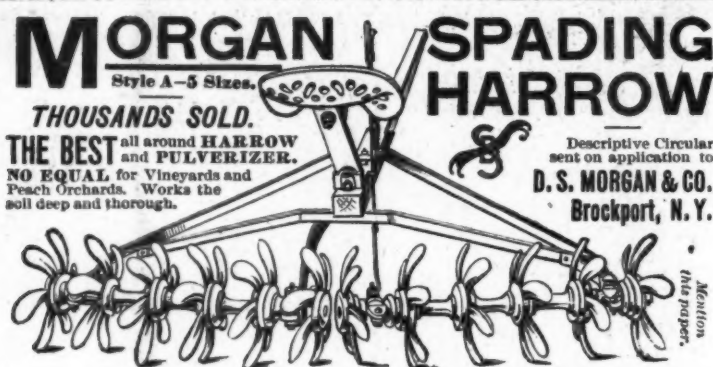
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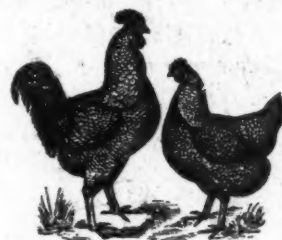
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